												FOR	M 2	
	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING AMENDED REPORT													
	APPLICATION FOR PERMIT TO DRILL									1. WELL NAME and N	JMBER RW 12C1	-23B		
2. TYPE (2. TYPE OF WORK DRILL NEW WELL (REENTER P&A WELL) DEEPEN WELL)								3. FIELD OR WILDCAT RED WASH					
4. TYPE C	4. TYPE OF WELL Gas Well Coalbed Methane Well: NO								5. UNIT or COMMUNI	TIZATION A		NT NAM	E	
6. NAME	OF OPERATO	R		QEP ENERGY						7. OPERATOR PHONE				
8. ADDRE	SS OF OPERA	TOR				rnal, Ut, 84078				9. OPERATOR E-MAIL			·om	
	RAL LEASE NU L, INDIAN, OR		11002 240		11. M	MINERAL OWNERSHI	- CT-1	<i>(</i>	$\overline{}$	12. SURFACE OWNER	SHIP			
		UTU082 E OWNER (if box	12 = 'fee')		FEI	DERAL INDIA	N () STATE () FEE(_	FEDERAL INI	DIAN ()	STATE (E()
		FACE OWNER (if		e')						16. SURFACE OWNE				
		7.02 0	JON 12 - 10		1								,	
	IN ALLOTTEE 2 = 'INDIAN')	OR TRIBE NAME				NTEND TO COMMING TIPLE FORMATIONS S (Submit Com			0	19. SLANT VERTICAL DIF	RECTIONAL	📵 но	ORIZONT.	AL 🔵
20. LOC	ATION OF WE	LL		FC	OTAG	GES	QTR-QTR	SEC	TION	TOWNSHIP	RAN	IGE	МЕ	RIDIAN
LOCATI	ON AT SURFA	CE		1710 FS	SL 21	56 FWL	NESW	2;	3	7.0 \$	23.0) E		S
Top of U	Jppermost Pr	oducing Zone		1800 F	SL 34	43 FWL	NWSW	2:	3	7.0 S	23.0) E		S
At Tota	l Depth			1800 F	SL 34	43 FWL	NWSW	2:	3	7.0 S	23.0	E		S
21. COUI	NTY	UINTAH			22. D	DISTANCE TO NEARE	ST LEASE LINE (F	eet)	7	23. NUMBER OF ACRI	ES IN DRILL 1280			
					(App	DISTANCE TO NEARE Died For Drilling or		POOL		26. PROPOSED DEPTI MD:		VD: 1114	2	
27. ELEV	ATION - GRO	JND LEVEL 5625			28. B	BOND NUMBER	ESB000024			29. SOURCE OF DRIL WATER RIGHTS APPR		BER IF AP	PLICABL	.E
						Hole, Casing, a	nd Cement Info	rmation						
String	Hole Size	Casing Size	Lengt		_	Grade & Thread	Max Mud Wt.			Cement		Sacks	Yield	Weight
Surf	12.25	9.625	0 - 378	83 40.0)	N-80 LT&C	0.0			n Light , Type Unkr		460	3.12	11.0
11	8.5	4.5	0 - 638	83 11.6		HCP-110 LT&C	9.5	наі	liburton	Premium , Type Ur	iknown	260	0.0	0.0
Prod	7.875	4.5		11.6		HCP-110 LT&C	10.5	Н	alliburto	n Light , Type Unkr	nown	670	3.18	11.0
					1			Hal	liburton	Premium , Type Ur	nknown	590	1.65	13.5
					Y	ATT	ACHMENTS							
	VE	ERIFY THE FOL	LOWING	ARE ATTAC	CHED	IN ACCORDANCE	E WITH THE UT	AH OIL AI	ND GAS	CONSERVATION G	ENERAL	RULES		
► v	VELL PLAT OR	MAP PREPARED	BY LICENSI	ED SURVEYO	R OR I	ENGINEER	№ сом	IPLETE DR	ILLING PL	_AN				
AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						FORM	/ 5. IF OPE	RATOR IS	S OTHER THAN THE LE	EASE OWN	ER			
DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)							г торо	GRAPHIC/	AL MAP					
NAME Jan Nelson TITLE Permit Ag						TITLE Permit Agen	t		PHONE	435 781-4331				
SIGNATURE DATE 01/31/201						!		EMAIL	ian.nelson@qepres.cor	n				
	iber assigne 04752330					APPROVAL			B	200 cylll				
									Pe	ermit Manager				

QEP Energy Company

RW 12C1-23B

Uintah County, Utah

SHL: 1710 FSL & 2156 FWL, Section 23, T7S, R23E BHL: 1800 FSL & 343 FWL, Section 23, T7S, R23E

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1 Approval of Operations on Onshore Federal Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil & Gas No. 1, and the approved plan of operations. The operator is fully responsible for the actions of its subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

1. <u>Formation Tops</u>

The estimated top of important geologic markers are as follows:

Formation Name	TVD (ft, RKB)	MD (ft, RKB)
Duchesne River/Uintah	0	0
Green River	2848	2939
Mahogany	3730	3730
Estimated Btm of Mod Saline Water	5516	5747
Wasatch	6122	6383
Mesaverde	8333	8605
Sego	10842	11114
TD	11142	11414

2. Anticipated Depths of Oil, Gas, Water, and Other Mineral Bearing Zones

The estimated depths at which the top of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered as follows:

Formation Name (Substance)	Depth (ft, TVD)	Depth (ft, MD)
Green River (Oil)	2848	2939
Wasatch (Gas)	6122	6383
Mesaverde (Gas)	8333	8605
Sego (Gas)	10842	11114

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

RW 12C1-23B 8-Point Drilling Plan Page 1 of 9 Created: January 5, 2012

QEP Energy Company RW 12C1-23B Uintah County, Utah

SHL: 1710 FSL & 2156 FWL, Section 23, T7S, R23E BHL: 1800 FSL & 343 FWL, Section 23, T7S, R23E

All water shows and water-bearing sands will be reported to the BLM in Vernal, Utah. Copies of State of Utah form OGC-8-X are acceptable. If flows are detected, samples will be submitted to the BLM along with any water analyses conducted. Fresh water will be obtained from Wonsits Valley water right A36125 (which was filed on May 7, 1964) or Red Wash water right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before 1989 is not depleting to the Upper Colorado River System, to supply fresh water for drilling purposes. All water resulting from drilling operations will be disposed of at LaPoint Recycling and Storage in Section 12, T5S R19E of Uintah County, UT or Red Wash Disposal site; SESE, Section 28, T7S, R23E or West End Disposal Site; NESE, Section 28, T7S, R22E.

3. Operator's Specification for Pressure Control Equipment

- A. An 11" 5000 psi double ram with blind rams and pipe rams, annular preventer and drilling spool or BOP with 2 side outlets.
- B. All BOP connections subject to pressure shall be flanged, welded or clamped.
- C. Kill line (2" min), 2 choke line valves (3" min), choke line (3" min), 2 kill line valves (2" min) and a check valve, 2 chokes with one remotely controlled from rig floor and a pressure gauge on choke manifold.
- D. Upper and Lower Kelly cock valves with handles and safety valve and subs to fit all drill string connections.
- E. IBOP or float sub available.
- F. Fill up line must be installed above the uppermost preventer.
- G. Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 50 percent of internal yield pressure of casing whichever is less. BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc..., for a 5M system and individual components shall be operable as designed.

RW 12C1-23B 8-Point Drilling Plan Page 2 of 9 Created: January 5, 2012

QEP Energy Company

RW 12C1-23B

Uintah County, Utah

SHL: 1710 FSL & 2156 FWL, Section 23, T7S, R23E BHL: 1800 FSL & 343 FWL, Section 23, T7S, R23E

4. <u>Casing Design:</u>

Hole	Csg.	Top	Bottom	Wt.	Grade	Thread	Cond.	Expected
Size (in)	Size	(MD)	(MD)	(ppf)				MW(ppg)
22	16	Sfc	40	Steel	Conductor	None	Used	N/A
12.25	9.625	Sfc	3783	40	N-80	LTC	New	Air
8.5	4.5	Sfc	6383	11.6	HCP-110	LTC	New	9.5
7.875	4.5	Sfc	11414	11.6	HCP-110	LTC	New	10.5

OD (in)	Wt (ppf)	Grade	Thread	Collapse (psi)	Burst (psi)	Tensile (kips, min)
9.625	40	N-80	LTC	3090	5750	727
4.5	11.6	HCP-110	LTC	8830	10710	279

Casing Design Factors

*The casing prescribed above meets or exceeds the below listed design factors.

Burst: 1.2 Collapse: 1.2 Tension: 1.6

Maximum anticipated mud weight: 10.5 ppg Maximum anticipated surface treating pressure: 7,200 psi

5. <u>Cementing Program</u>

9-5/8" Surface Casing:

	Lead	<u>Tail</u>
Top of Slurry (ft, MD):	0	3000
Bottom of Slurry (ft, MD):	3000	3000
Weight (ppg):	11.0	13.5
Yeild (ft ³ /sk):	3.12	1.47
% Excess (Open Hole Only):	50%	50%
Volume (ft ³):	1410	368
Volume (Sacks):	460	260

RW 12C1-23B 8-Point Drilling Plan Page 3 of 9 Created: January 5, 2012

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QEP Energy Company

RW 12C1-23B

Uintah County, Utah

SHL: 1710 FSL & 2156 FWL, Section 23, T7S, R23E BHL: 1800 FSL & 343 FWL, Section 23, T7S, R23E

4-1/2" Production Casing*:

	Lead	<u>Tail</u>
Top of Slurry (ft, MD):	3000	8605
Bottom of Slurry (ft, MD):	8605	11414
Weight (ppg):	11.0	13.5
Yeild (ft ³ /sk):	3.18	1.65
% Excess (Open Hole Only):	50%	50%
Volume (ft ³):	2113	964
Volume (Sacks):	670	590

^{*}Final cement volumes to be calculated from caliper log, if run.

6. Auxiliary Equipment

- A. Kelly Cock yes
- B. Float at the bit Yes
- C. Monitoring equipment on the mud system PVT/Flow Show
- D. Full opening safety valve on the rig floor Yes
- E. Rotating Head Yes
- F. Request for Variance:

Drilling surface hole with air:

A variance from 43 CFR 3160 Onshore Oil and Gas Order #2, Section III Requirements, subsection E. Special Drilling Operations is requested for the specific operation of drilling and setting surface casing on the subject well with a truck mounted air rig. The variance from the following requirements of Order #2 is requested because surface casing depth for this well is 50' or deeper into the Mahogany Bench formation and high pressures are not expected.

- 1. **Properly lubricated and maintained rotating head** A diverter system in place of a rotating head. The diverter system forces the air and cutting returns to the reserve pit and is used to drill the surface casing.
- 2. **Blooie line discharge 100 feet from wellbore and securely anchored** the blooie line discharge for this operation will be located 50 to 70 feet from the wellhead. This reduced length is necessary due to the smaller location size to minimize surface disturbance.

RW 12C1-23B 8-Point Drilling Plan Page 4 of 9

Created: January 5, 2012

QEP Energy Company

RW 12C1-23B

Uintah County, Utah

SHL: 1710 FSL & 2156 FWL, Section 23, T7S, R23E BHL: 1800 FSL & 343 FWL, Section 23, T7S, R23E

- 3. Automatic igniter or continuous pilot light on blooie line a diffuser will be used rather than an automatic pilot/igniter. Water is injected into the compressed air and eliminates the need for a pilot light and the need for dust suppression equipment.
- 4. Compressors located in the opposite direction from the blooie line a minimum of 100 feet from the wellbore compressors located within 50 feet on the opposite side of the wellbore from the blooie line and is equipped with a 1) emergency kill switch on the driller's console, 2) pressure relief valves on the compressors, 3) spark arrestors on the motors.
- 5. Well Kill Fluid A suitable amount of water and weighting agents will be available in the reserve pit during air drilling operations to kill the well, if necessary. No overpressured zones are expected in the area.
- 6. **Deflector on the end of the blooie line** QEP will mount a deflector unit at the end of the blooie line for the purpose of changing the direction and velocity of the air and cuttings flow into the reserve pit. Changing the velocity and direction of the cuttings and air will preserve the pit liner. In the event the deflector washes out due to erosion caused by the sand blasting effect of the cuttings, there will be no problem because the deflector is mounted on the very end of the blooie. A washed out deflector will be easily replaced.
- 7. **Flare Pit** there will be no need of a flare pit during the surface hole air drilling operation because the blooic line is routed directly to the reserve pit. When the big rig arrives for the main drilling after setting surface casing, a flare box will be installed and all flare lines will be routed to the flare box.
- G. Drilling below the 9-5/8" casing will be done with water based mud. Maximum anticipated mud weight is 10.5 ppg.
- H. No minimum quantity of weight material will be required to be kept on location.
- I Gas detector will be used from intermediate casing depth to TD.

7. Testing logging and coring program

- A. Cores none.
- B. DST none anticipated
- C. Logging Mud logging Intermediate Casing to TD OH Logs: GR-SP-Induction, Neutron Density.
- D. Formation and Completion Interval:

RW 12C1-23B 8-Point Drilling Plan Page 5 of 9 Created: January 5, 2012

QEP Energy Company

RW 12C1-23B

Uintah County, Utah

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- Stimulation will be designed for the particular area of interest as

encountered.

8. <u>Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards</u>

No abnormal temperatures or pressures are anticipated.

Maximum anticipated bottom hole pressure (approx, psi): 6084

Maximum anticipated bottom hole temperature (approx, deg F): 210

H2S has not been encountered in other wells drilled to similar depths in the general area.



RW 12C1-23B 8-Point Drilling Plan Page 6 of 9 Created: January 5, 2012

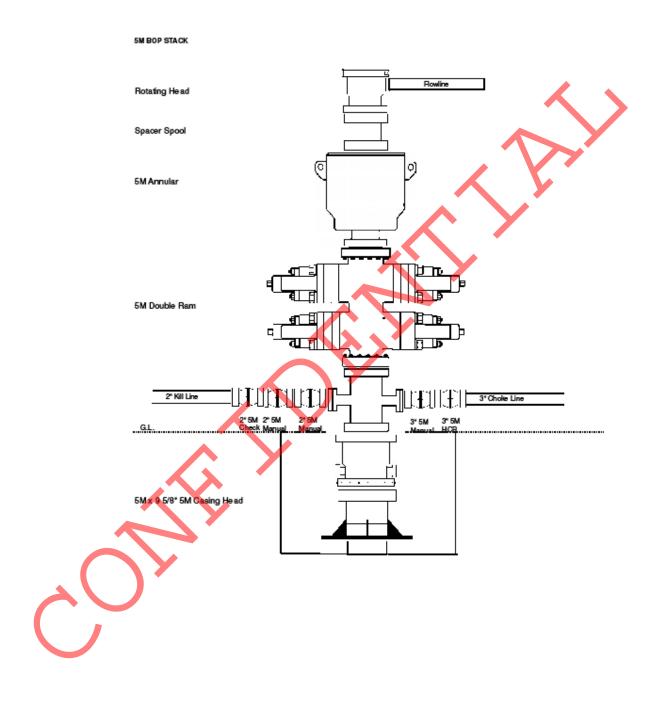
RECEIVED: January 31, 2012

QEP Energy Company

RW 12C1-23B

Uintah County, Utah

SHL: 1710 FSL & 2156 FWL, Section 23, T7S, R23E BHL: 1800 FSL & 343 FWL, Section 23, T7S, R23E

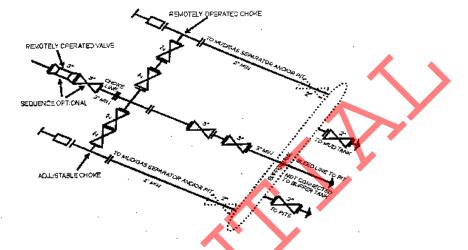


QEP Energy Company

RW 12C1-23B

Uintah County, Utah

SHL: 1710 FSL & 2156 FWL, Section 23, T7S, R23E BHL: 1800 FSL & 343 FWL, Section 23, T7S, R23E



5M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

[54 FR 39528, Sept. 27, 1989]

Created: January 5, 2012

QEP Energy Company

RW 12C1-23B

Uintah County, Utah

SHL: 1710 FSL & 2156 FWL, Section 23, T7S, R23E BHL: 1800 FSL & 343 FWL, Section 23, T7S, R23E

WELLBORE DIAGRAM

General Information					
Pad	23-23B				
Pod	4				
Elevation, GL	5625				
Elevation, RKB	5641				

Geologic Prognosis					
<u>Formation</u>	TVD	MD			
Duchesne River/Uintah	0	0			
Green River	2848	2939			
Mahogany	3600	3730			
Est Btm of Mod Saline Water	5516	5747			
Wasatch	6122	6383			
Mesaverde	8333	8605			
Sego	10842	11114			
TD	11142	11414			

Hole Size	From (MD)	To (MD)
12.25	0	3783
8.5	3783	6383
7.875	6383	11414

Directional Information					
KOP:	500	ft			
Departure:	1815	ft			
Azimuth:	272.83	deg			

Casing Information						
	Size	Wt	Grade	Connection	Depth (MD)	
	9.625	40	N-80	LTC	3783	
	4.5	11.6	HCP-110	LTC	11414	

Conductor Information					
Conductor set @	40				
Cemented to Surface	•				

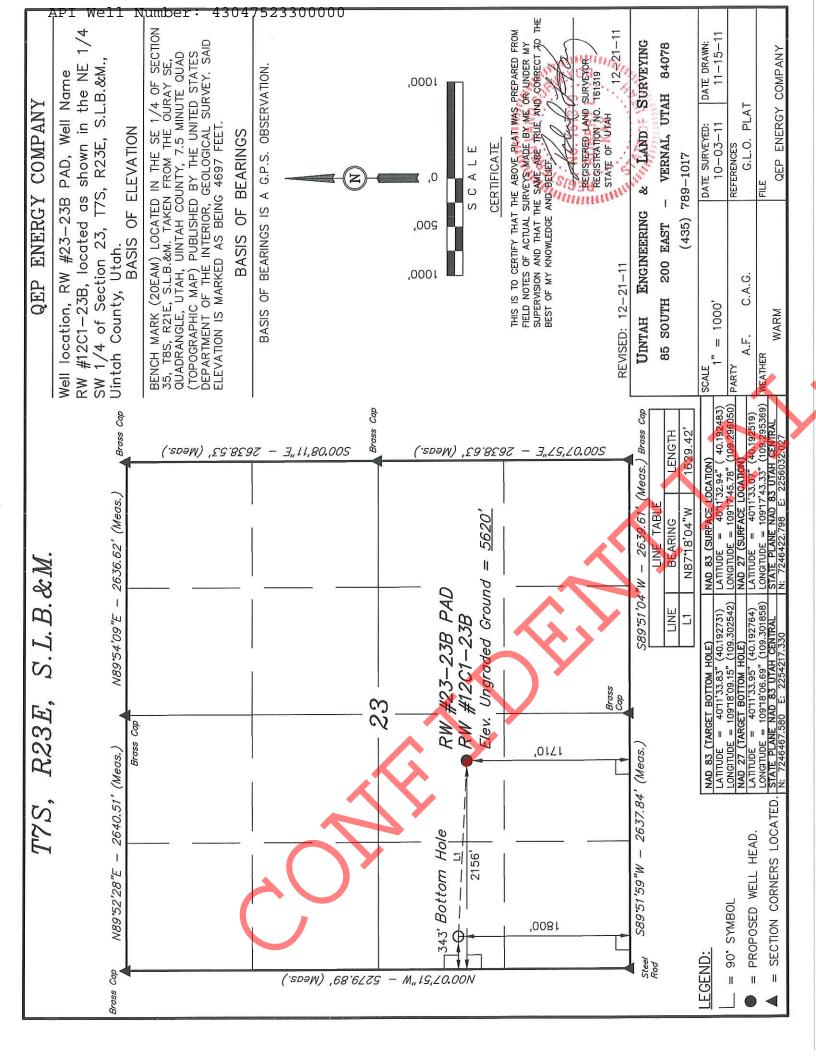
Surface Cement								
•	Top (MD)	Wt	Volume					
		(ppg)	(Sacks)					
Lead	0	11	460					
Tail	3000	13.5	260					

Production Cement								
Top (MD) Wt Volume								
		(ppg)	(Sacks)					
Lead	3000	11	670					
Tail	8605	13.5	590					

RW 12C1-23B 8-Point Drilling Plan Page 9 of 9

RECEIVED: January 31, 2012

Created: January 5, 2012



QEP ENERGY COMPANY

RW #23-23B PAD

LOCATED IN UINTAH COUNTY, UTAH SECTION 23, T7S, R23E, S.L.B.&M.

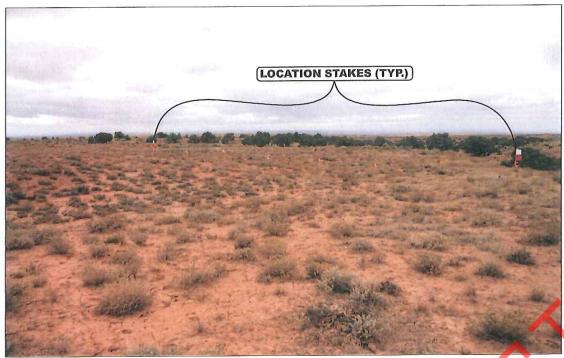


PHOTO: VIEW OF LOCATION STAKES

CAMERA ANGLE: SOUTHERLY



PHOTO: VIEW OF EXISTING ACCESS

CAMERA ANGLE: SOUTHERLY

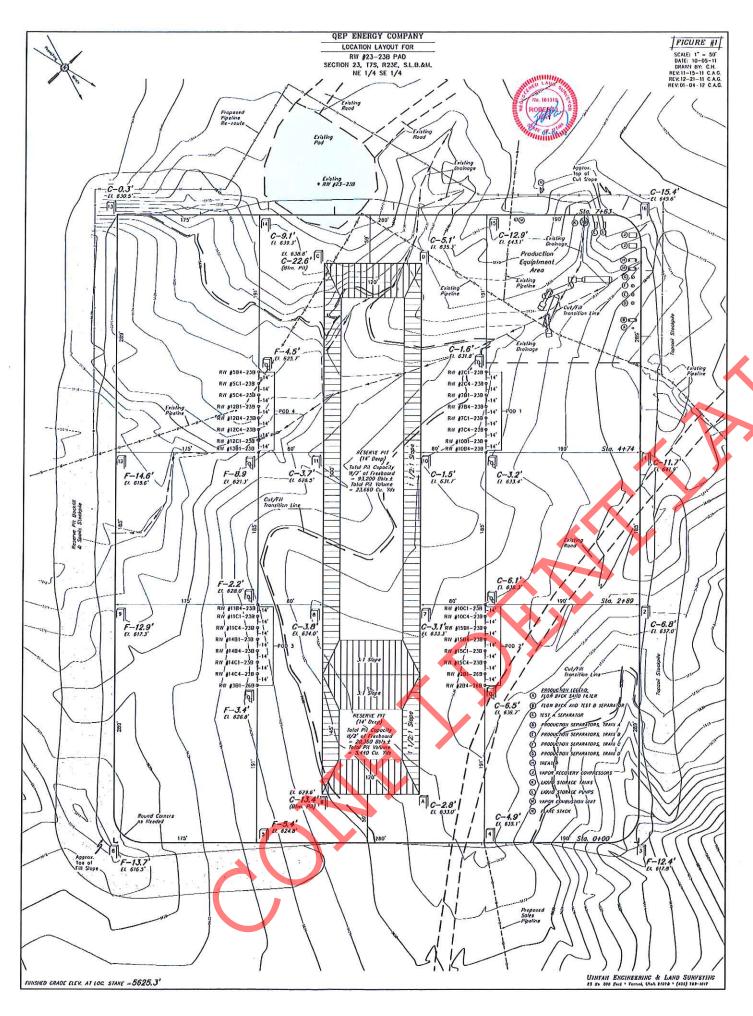


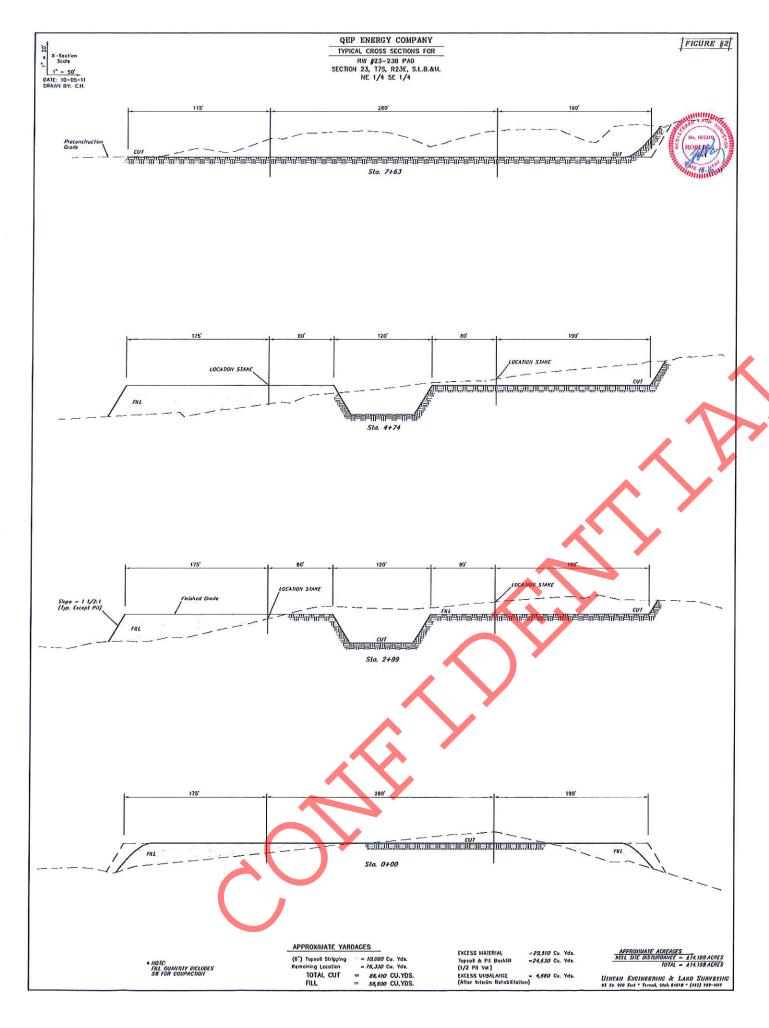
Uintah Engineering & Land Surveying 85 South 200 East Vernal, Utah 84078 (435) 789-1017 * FAX (435) 789-1813

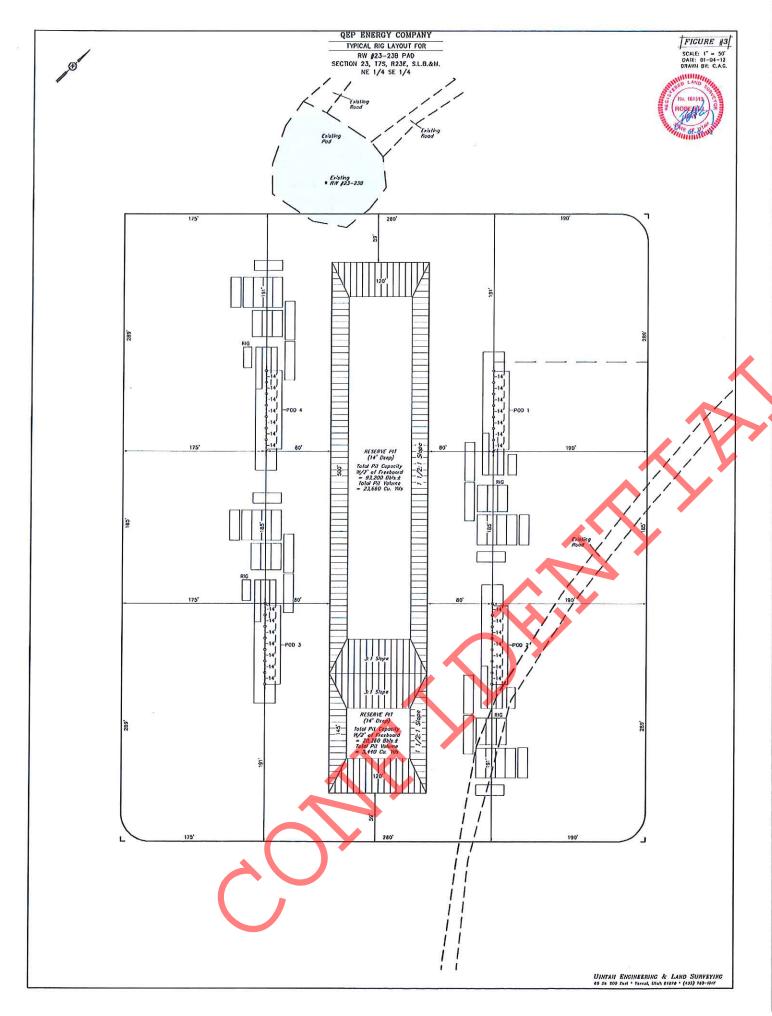
LOCATION PHOTOS

РНОТО

TAKEN BY: A.F. | DRAWN BY: A.W. | REVISED: 00-00-00





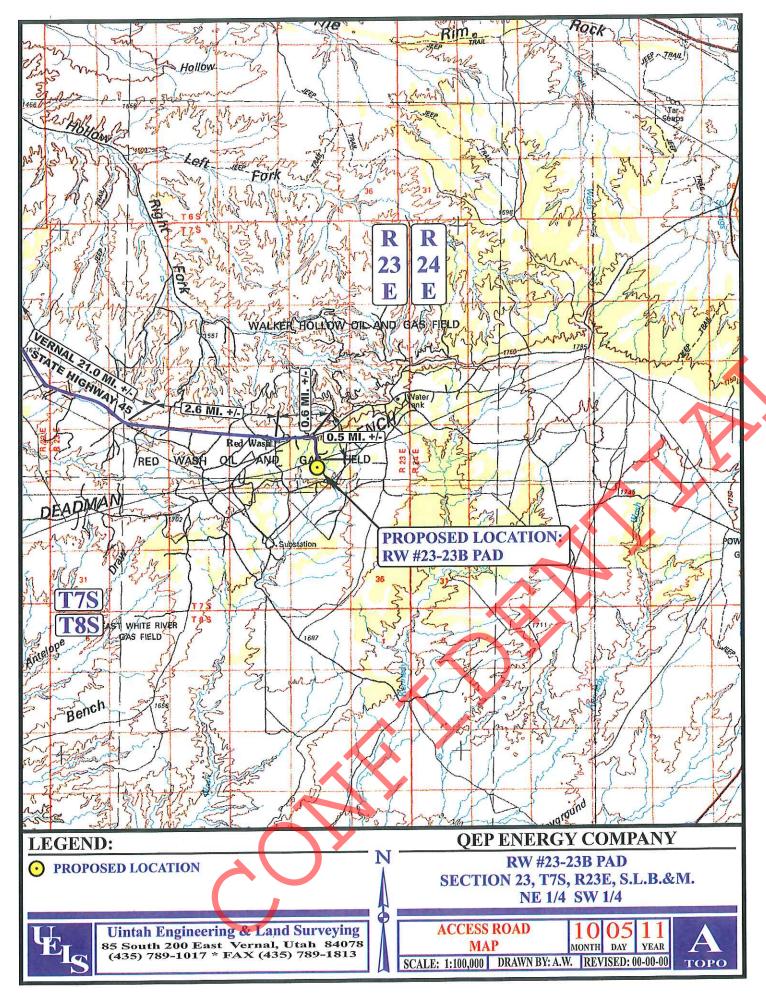


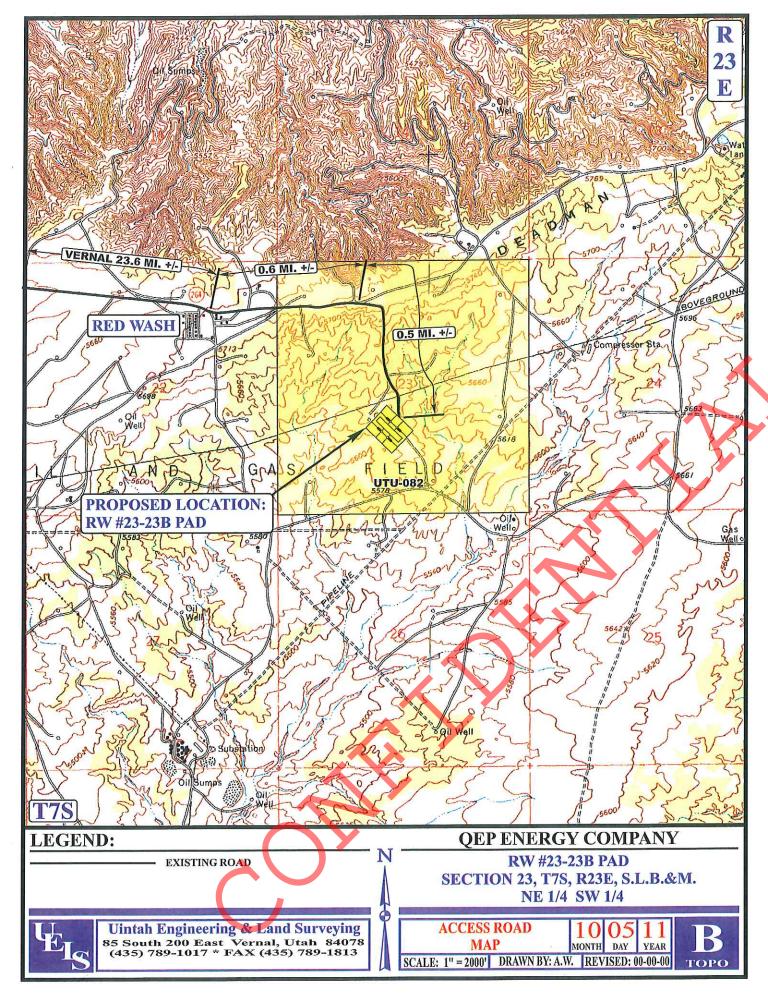
QEP ENERGY COMPANY RW #23-23B PAD SECTION 23, T7S, R23E, S.L.B.&M.

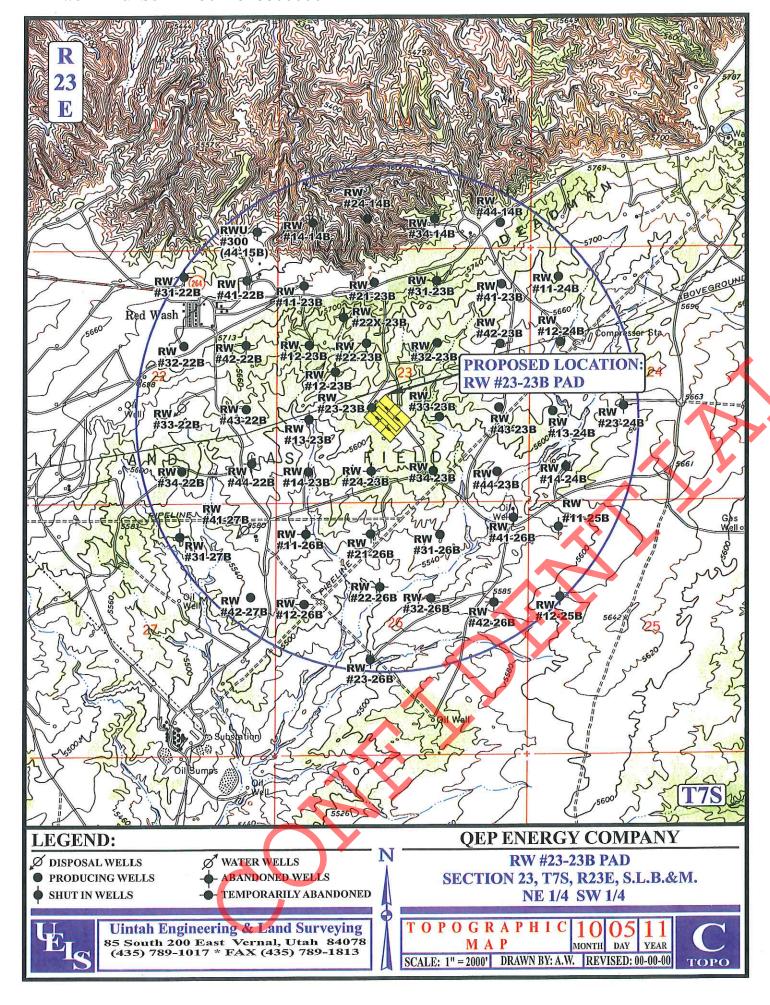
PROCEED IN AN EASTERLY, THEN SOUTHERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 3.9 MILES TO THE JUNCTION OF THIS ROAD AND STATE HIGHWAY 45 TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 2.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE PROPOSED LOCATION.

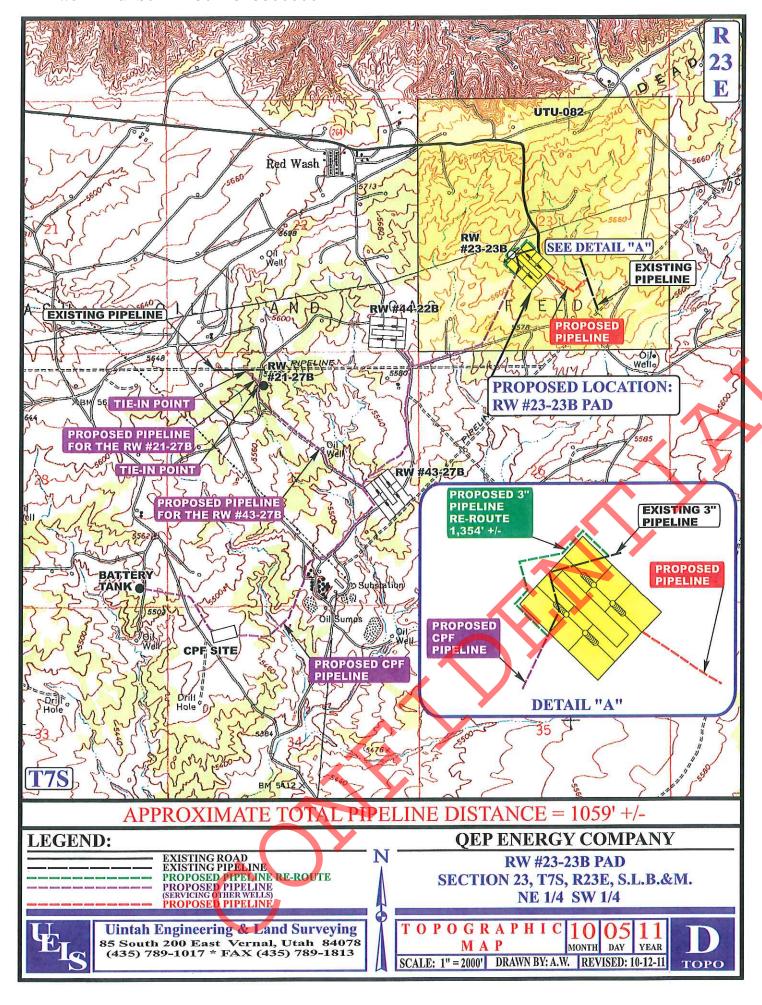
TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED LOCATION IS APPROXIMATELY 24.7 MILES.













QEP ENERGY (UT)

Red Wash 23-23B PAD RW 12C1-23B

Original Hole

Plan: Plan ver.1 - Permit

Standard Planning Report

10 January, 2012



Plan ver.1 - Permit



Design:

QEP Resources, Inc.

Planning Report



40.193199

1.41 9

-109.295575

Database: EDMDB_QEP
Company: QEP ENERGY (UT)
Project: Red Wash
Site: 23-23B PAD
Well: RW 12C1-23B
Wellbore: Original Hole

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Well RW 12C1-23B RKB @ 5641.30usft (Est RKB) RKB @ 5641.30usft (Est RKB)

True

Minimum Curvature

Project Red Wash

Map System: US State Plane 1983

Geo Datum: North American Datum 1983

Map Zone: Utah Central Zone

System Datum: Mean Sea Level

Using geodetic scale factor

Site 23-23B PAD

Site Position:

Northing: 7,246,686.310 usft
Latitude:

From: Map Easting: 2,256,158.369 usft Longitude:

Position Uncertainty: 0.00 usft Slot Radius: 13-3/16 " Grid Convergence:

Well RW 12C1-23B

 Well Position
 +N/-S
 -260.34 usft
 Northing:
 7,246,422.798 usft
 Latitude:
 40.192484

 +E/-W
 -132.81 usft
 Easting:
 2,256,032.027 usft
 Longitude:
 -109.296050

Position Uncertainty 0.00 usft Wellhead Elevation: 5,625.30 usft Ground Level: 5,625.30 usft

Wellbore Original Hole

Magnetics Model Name Sample Date Declination Dip Angle (°) (nT)

IGRF2010 12/7/2011 10.95 66.05 52,408

Design Plan ver.1 - Permit **Audit Notes:** Version: Phase: PLAN Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.00 0.00 0.00 272.83

Plan Sections			,^							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,408.54	18.17	272.83	1,393.39	7.04	-142.69	2.00	2.00	0.00	272.83	
6,160.97	18.17	272.83	5,908.82	80.10	-1,622.94	0.00	0.00	0.00	0.00	
7,372.36	0.00	0.00	7,100.00	89.49	-1,813.19	1.50	-1.50	0.00	180.00	
11,414.36	0.00	0.00	11,142.00	89.49	-1,813.19	0.00	0.00	0.00	0.00	

Plan ver.1 - Permit



Design:

QEP Resources, Inc.

Planning Report



Database: EDMDB_QEP
Company: QEP ENERGY (UT)
Project: Red Wash
Site: 23-23B PAD
Well: RW 12C1-23B
Wellbore: Original Hole

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Well RW 12C1-23B RKB @ 5641.30usft (Est RKB) RKB @ 5641.30usft (Est RKB) True

Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,408.54	18.17	272.83	1,393.39	7.04	-142.69	142.86	2.00	2.00	0.00
6,160.97	18.17	272.83	5,908.82	80.10	-1,622.94	1,624.91	0.00	0.00	0.00
7,372.36	0.00	0.00	7,100.00	89.49	-1,813.19	1,815.40	1.50	-1.50	0.00
11,414.36	0.00	0.00	11,142.00	89.49	-1,813.19	1,815.40	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
RW 12C1-23B Target - plan misses target - Circle (radius 150.		0.00 0.00usft at 7	8,330.00 372.36usft I	89.49 MD (7100.00 T	-1,813.19 VD, 89.49 N,	7,246,467.580 -1813.19 E)	2,254,217.330	40.192730	-109.302541

Casing Points				
	Measured Depth	Vertical Depth		Casing Hole Diameter Diameter
	(usft)	(usft)	Name	(")
	3,783.59	3,650.00 8 5/8"		8-5/8 12-1/4

Formations						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	2,939.50	2,848.00	Green River		0.00	
	3,730.97	3,600.00	Mahogany		0.00	
	5,747.53	5,516.00	Est. Moderately Saline Water Base		0.00	
	6,383.34	6,122.00	Wasatch		0.00	
	8,605.36	8,333.00	Mesaverde		0.00	
	11,114.3 <mark>6</mark>	10,842.00	Sego		0.00	



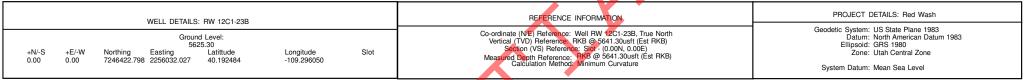
Company Name: QEP ENERGY (UT)

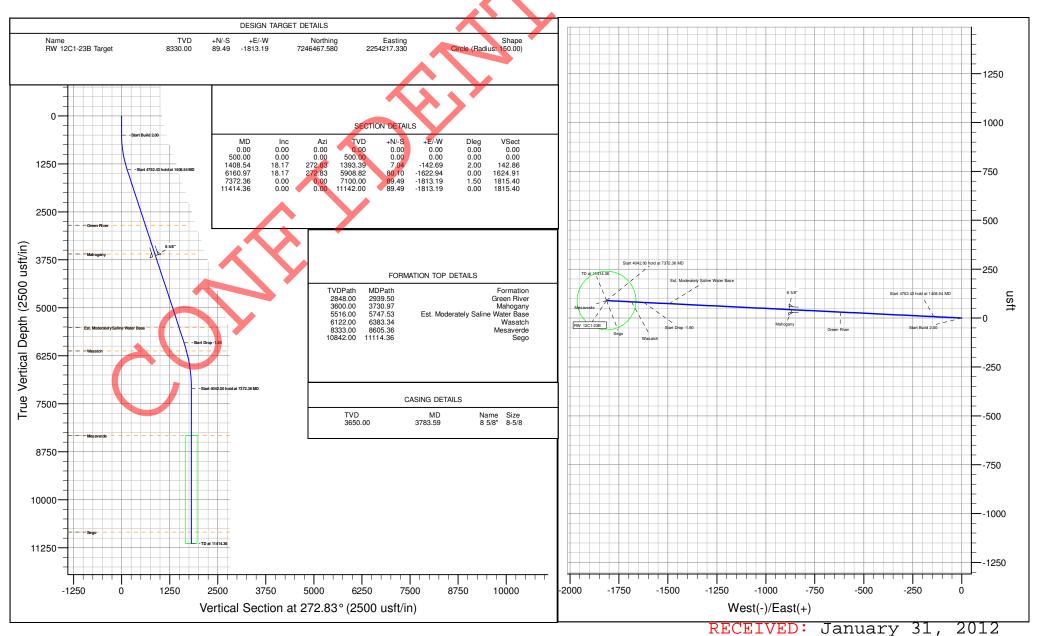
M A

Magnetic North: 10.95°

Magnetic Field
Strength: 52408.4snT
Dip Angle: 66.05°
Date: 12/7/2011
Model: IGRF2010

Project: Red Wash Site: 23-23B PAD Well: RW 12C1-23B Wellbore: Original Hole Design: Plan ver.1 - Permit





QEP ENERGY COMPANY RED WASH 23-23B PAD EXPANSION

ONSHORE ORDER NO. 1 MULTI – POINT SURFACE USE & OPERATIONS PLAN

RW 7C1-23B Surface: BHL:	1932' FSL, 2 2167' FNL, 2	SEC.23 SEC.23	NESW, T7S, R23E SWNE, T7S, R23E
RW 2C1-23B Surface: BHL:	1971' FSL, 2	SEC.23 SEC.23	NESW, T7S, R23E NWNE, T7S, R23E
RW 2C4-23B Surface: BHL:	1961' FSL, 2 1176' FNL, 2	SEC.23 SEC.23	NESW, T7S, R23E NWNE, T7S, R23E
RW 7B1-23B Surface: BHL:	1951' FSL, 2 1506' FNL, 2	SEC.23 SEC.23	NESW, T7S, R23E SWNE, T7S, R23E
RW 7B4-23B Surface: BHL:	1942' FSL, 2 1836' FNL, 2	SEC.23 SEC.23	NESW, T7S, R23E SWNE, T7S, R23E
RW 7C4-23B Surface: BHL:	1922' FSL, 2 2495' FNL,	SEC.23 SEC.23	NESW, T7S, R23E SENE, T7S, R23E
RW 10B1-23B Surface: BHL:	1913' FSL, 2 2454' FSL, 2	SEC.23 SEC.23	NESW, T7S, R23E NWSE, T7S, R23E
RW 10B4-23B Surface: BHL:	1903' FSL, 2 2123' FSL, 2	SEC.23 SEC.23	NESW, T7S, R23E NWSE, T7S, R23E
RW 10C1-23B Surface: BHL:	1775' FSL, 2 1793' FSL, 2	SEC.23 SEC.23	NESW, T7S, R23E NWSE, T7S, R23E
RW 10C4-23B Surface: BHL:	1765' FSL, 2 1461' FSL, 2	SEC.23 SEC.23	NESW, T7S, R23E NWSE, T7S, R23E
RW 15B1-23B Surface: BHL:	1756' FSL, 2 1133' FSL, 2	SEC.23 SEC.23	NESW, T7S, R23E SWSE, T7S, R23E

RECEIVED: January 31, 2012

RW 15B4-23B Surface: BHL:	1746' FSL, 2524' FWL 804' FSL, 2295' FEL	SEC.23 SEC.23	NESW, T7S, R23E SWSE, T7S, R23E
RW 15C1-23B Surface: BHL:	1736' FSL, 2534' FWL 476' FSL, 2295' FEL	SEC.23 SEC.23	NESW, T7S, R23E SWSE, T7S, R23E
RW 15C4-23B Surface: BHL:	1727' FSL, 2544' FWL 144' FSL, 2292' FEL	SEC. 23 SEC.23	NESW, T7S, R23E SWSE, T7S, R23E
RW 2B1-26B Surface: BHL:	1717' FSL, 2554' FWL 186' FNL, 2292' FEL	SEC.23 SEC.26	NESW, T7S, R23E NWNE, T7S, R23E
RW 2B4-26B Surface: BHL:	1707' FSL, 2564' FWL 516' FNL' 2292' FEL	SEC.23 SEC.26	NESW, T7S, R23E NWNE, T7S, R23E
RW 5B4-23B Surface: BHL:	1768' FSL, 2096' FWL 1829' FNL, 342' FWL	SEC.23 SEC.23	NESW, T7S, R23E SWNW, T7S, R23E
RW 5C1-23B Surface: BHL:	1759' FSL, 2106' FWL 2153' FNL, 343' FWL	SEC.23 SEC.23	NESW, T7S, R23E SWNW, T7S, R23E
RW 5C4-23B Surface: BHL:	1749' FSL, 2116' FWL 2483' FNL, 341' FWL	SEC.23 SEC.23	NESW, T7S, R23E SWNW, T7S, R23E
RW 12B1-23B Surface: BHL:	1739' FSL, 2126' FWL 2469' FSL, 342' FWL	SEC.23 SEC.23	NESW, T7S, R23E NWSW, T7S, R23E
RW 12B4-23B Surface: BHL:	1730' FSL, 2136' FWL 2132' FSL, 340' FWL	SEC.23 SEC.23	NESW, T7S, R23E NWSW, T7S, R23E
RW 12C4-23B Surface: BHL:	1720' FSL, 2146' FWL 1472' FSL, 342' FWL	SEC.23 SEC.23	NESW, T7S, R23E NWSW, T7S, R23E
RW 12C1-23B Surface: BHL:	1710' FSL, 2156' FWL 1800' FSL, 343' FWL	SEC.23 SEC.23	NESW, T7S, R23E NWSW, T7S, R23E
RW 13B1-23B Surface: BHL:	1701' FSL, 2166' FWL 1150' FSL, 342' FWL	SEC.23 SEC.23	NESW, T7S, R23E SWSW, T7S, R23E

RECEIVED: January 31, 2012

RW 11B4-23B Surface: BHL:	1573' FSL, 2300' FWL 2127' FSL, 1664' FWL	SEC.23 SEC.23	NESW, T7S, R23E NESW, T7S, R23E
RW 11C1-23B Surface: BHL:	1563' FSL, 2310' FWL 1796' FSL, 1663' FWL	SEC.23 SEC.23	NESW, T7S, R23E NESW, T7S, R23E
RW 11C4-23B Surface: BHL:	1553' FSL, 2320' FWL 1464' FSL, 1663' FWL	SEC.23 SEC.23	NESW, T7S, R23E NESW, T7S, R23E
RW 14B1-23B Surface: BHL:	1544' FSL, 2330' FWL 1142' FSL, 1662' FWL	SEC.23 SEC.23	NESW, T7S, R23E SESW, T7S, R23E
RW 14B4-23B Surface: BHL:	1534' FSL, 2341' FWL 806' FSL, 1660' FWL	SEC.23 SEC.23	NESW, T7S, R23E SESW, T7S, R23E
RW 14C1-23B Surface: BHL:	1524' FSL, 2351' FWL 480' FSL, 1661' FWL	SEC.23 SEC.23	NESW, T7S, R23E SESW, T7S, R23E
RW 14C4-23B Surface: BHL:	1515' FSL, 2361' FWL 149' FSL, 1662' FWL	SEC.23 SEC.23	NESW, T7S, R23E SESW, T7S, R23E
RW 3B1-26B Surface: BHL:	1505' FSL, 2371' FWL 182' FNL, 1661' FWL	SEC.23 SEC.26	NESW, T7S, R23E NENW, T7S, R23E

This surface use and operations plan provides site specific information for the above referenced wells.

An onsite inspection was conducted for the RW 23-23B Pad Expansion on October 11, 2011. Weather conditions were sunny at the time of the onsite. In attendance at the inspection were the following individuals:

Kevin Sadlier

Holly Villa

Bureau of Land Management
Bureau of Land Management
QEP Energy Company

Stephanie Tomkinson
Ryan Angus
Valyn Davis
Bob Haygood
QEP Energy Company

Andy Floyd Uintah Engineering & Land Surveying

The proposed project consists of a 32 well pad with 14.198 acres of total disturbance. This equates to approximately 0.43 acres of disturbance per well.

1. Existing Roads:

The proposed well site is approximately 25 miles South of Vernal, Utah.

Refer to Topo Maps A and B for location of access roads within a 2 – mile radius.

All existing roads will be maintained and kept in good repair during all phases of operation.

2. Planned Access Roads:

Please refer to QEP Energy Company Greater Deadman Bench EIS UTU-080-200-0369V Record of Decision dated March 31, 2008.

Refer to Topo Map B for the location of the proposed access road.

No new access road is proposed. The access to be used is the existing road that parallels pod #2. The road will be re-routed on the north east side of the pad and will remain on the pad. Graveling or capping the roadbed will be performed as necessary to provide a well constructed safe road. Should conditions warrant, rock, gravel or culverts will be installed as needed.

Refer to Topo Map B for the location of the proposed access road.

3. Location of Existing Wells Within a 1 - Mile Radius:

Please refer to Topo Map C.

4. Location of Existing & Proposed Facilities:

Please refer to QEP Energy Company Greater Deadman Bench EIS UTU-080-200-0369V Record of Decision dated March 31, 2008.

Please refer to Figure 1 for production facility layout and location.

The following guidelines will apply if the well is productive.

A containment dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks). These dikes will be constructed of compacted impervious subsoil; hold 110% of the capacity of the largest tank; and, be independent of the back cut. If a Spill Prevention, Control, and Countermeasure (SPCC) Plan is required by the Environmental Protection Agency, the containment dike may be expanded to meet SPCC requirements with approval by the BLM/VFO AO. The specific APD will address additional capacity if such is needed due to environmental concerns. The use of topsoil for the construction of dikes will not be allowed.

All loading lines will be placed inside the berm surrounding the tank batteries.

All permanent (on site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a color approved by the BLM.

It was determined on the onsite by the BLM VFO AO that the facilities will be painted Covert Green.

The existing 3" pipeline that crosses the proposed location will be re-routed to the north east side of the pad for safety. The proposed pipeline re-route is 1,354' in length, containing approximately .932 acres. Please refer to Topo Map D for the location of the existing pipeline and the re-route.

Refer to Topo Map D for the location of the proposed pipeline.

All existing equipment will be moved off location before any construction begins.

The proposed surface pipeline will be constructed utilizing existing disturbed areas to minimize surface disturbance. No construction activities will be allowed outside of the proposed pipeline.

Prior to construction, the Permittee will develop a plan of installation to minimize surface disturbance. Pipe will be strung along the pipeline route with either a flatbed trailer and rubber tired backhoe or a tracked typed side boom. Where surface conditions do not allow the pipe to be strung using conventional methods, the Permittee will utilize pull sections to run the fabricated pipe through the area from central staging areas along the pipeline route.

Upon completion of stringing activities the Permittee will fabricate the pipeline on wooden skids adjacent to the centerline of the pipeline route using truck mounted welding machines. All fabricated piping will be lowered off of the wooden skids and placed along the centerline. Upon completion of all activities, the wooden skids will be removed from the pipeline route using a flatbed truck or flatbed truck and trailer.

When the surface terrain prohibits the Permittee from safely installing the pipeline along the pipeline route, grading of the route will be required. Prior to installing the pipeline in these areas a plan will be developed to safely install the pipeline while minimizing grading activities and surface disturbances. Additionally, erosion control Best Management Practices will be installed as needed prior to the start of any grading activities. Surface grading will be limited to what is needed to safely install the pipeline. Track type bulldozers and track type backhoes will be utilized for grading activities.

Upon completion of the pipeline installation, the pipeline route will be restored to the pre-disturbance surface contours.

The proposed pipeline will be a surface 10" or smaller, 1,059' in length, containing .729 acres.

Road Crossings

Fusion Bond or concrete coated pipe will be used for all road crossings to alleviate future corrosion.

All pipe and fittings used for road crossings will be prefabricated within the proposed pipeline route to minimize the duration of open pipe trench across the roadway. Pipe used for road crossings will be isolated on each end with a flange set and insulation kit and cathodically protected with a magnesium type anode. Adequately sized equipment will be used for minor and major road crossings. Depth of cover for minor roads will be >4' and the depth of cover for major roads will be >6'.

Prior to lowering the pipe in the trench, the Permittee will "Jeep" the pipe to locate and repair any Holidays in the pipe coating. Upon lowering the pipe in the trench, 6" of bedding and a minimum of 6" of shading will be installed to protect the pipe using either native soils <1" in diameter or imported sand. Pipe trenches that extend across gravel roads will be backfilled with native soils to within 8" of the driving surface and capped with 3/4" road base. Pipe trenches that extend across asphalt paved roads will be backfilled to 4" of the driving surface with 3/4" road base and capped asphalt material.

5. Location and Type of Water Supply:

Please refer to QEP Energy Company Greater Deadman Bench ElS UTU-080-200-0369V Record of Decision dated March 31, 2008.

Water for drilling purposes would be obtained from Wonsits Valley Water Right # A 36125 (which was filed on May 7, 1964) or Red Wash Water Right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before 1989 is not depleting to the Upper Colorado River System.

6. Source of Construction Materials:

Please refer to QEP Energy Company Greater Deadman Bench EIS UTU-080-200-0369V Record of Decision dated March 31, 2008.

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

The use of materials under BLM jurisdiction will conform with 43 CFR 3610.2-3.

7. Methods of Handling Waste Materials:

Please refer to QEP Energy Company Greater Deadman Bench EIS UTU-080-200-0369V Record of Decision dated March 31, 2008.

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids including salts and chemicals will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be used at the next drill site or will be removed and disposed of at an approved waste disposal facility within 6 months after drilling is terminated.

Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

Unless specified in the site specific APD, the reserve pit will be constructed on the location and will not be located within natural drainages, where a flood hazard exists or surface runoff will or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

It will be determined at the on-site inspection if a pit liner is necessary, the reserve pit will be lined with a synthetic reinforced 30 mil liner with sufficient bedding to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place.

No trash or scrap will be disposed of in the pit.

Reserve pit leaks are considered an undesirable event and will be orally reported to the AO.

After first production, produced wastewater will be confined to the approved pit or storage tank for a period not to exceed 90 days.

After the 90 day period, the produced water will be contained in tanks on location and then hauled by truck to one of the following pre-approved disposal sites:

Red Wash Disposal well located in the SESE, Section 28, T7S, R23E, West End Disposal located in the NESE, Section 28, T7S, R22E, NBE 12 SWD-10-9-23 located in the NWSW, Section 10, 9S, 23E.

Produced water, oil, and other byproducts will not be applied to roads or well pads for the control of dust or weeds. The dumping of produced fluids on roads, well sites, or other areas will not be allowed.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site. The spills will be reported to the AO and other authorities as appropriate.

A chemical porta-toilet will be furnished with the drilling rig. The chemical porta-toilet wastes will be hauled to Ashley Valley Sewer and Water System for disposal.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. Trash will not be burned on location. All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig. All trash and waste material will be hauled to the Uintah County Landfill.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of wells. Furthermore, extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will not be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of wells within these areas. Specific APD's shall address any modifications from this policy.

8. Ancillary Facilities:

None anticipated.

9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram rig orientation, parking areas, and access roads, as well as the location of the following:

The reserve pit.

The stockpiled topsoil will not be used for facility berms. All brush removed from the well pad during construction will be stockpiled with topsoil.

The flare pit or flare box will be located downwind from the prevailing wind direction.

Any drainage that crosses the well location will be diverted around the location by using ditches, water diversion drains or berms. If deemed necessary at the on-site, erosion drains may be installed to contain sediments that could be produced from access roads and well locations.

A pit liner is required. A felt pit liner will be required if bedrock is encountered.

10. Fencing Requirements:

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

All pits will be fenced according to the following minimum standards:

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

All wire shall be stretched using a stretching device before it is attached to corner posts.

The reserve pit will be fenced on three (3) sides during drilling operations. The fourth side will be put in place when the rig moves off location. The pit will be fenced and maintained until it is backfilled. If drilling operations does not commence within 3 days, the fourth side of the fence will be installed

11. Plans for Reclamation of the Surface:

Please refer to QEP Energy Company Uinta Basin Division Reclamation Plan

Site Specific Procedures:

Site Specific Reclamation Summary:

Reclamation will follow QEP Energy Company, Uinta Basin Division's Reclamation Plan, September 2009 (QEP's Reclamation Plan) and the BLM Green River District Reclamation Guidelines.

After the pad is built, the topsoil piles will be seeded, signed, and erosion control devices and techniques will be implemented.

All trash and debris will be removed from the disturbed area.

After the wells are on production, the pad will be downsized to a smaller production pad.

The cuttings pit is located in the center of the production pad; it will be backfilled and capped with road base and gravel.

Interim reclamation will be conducted on the portion of the pad that is downsized.

The interim reclamation area will be recontoured to blend with the surrounding landscape. All topsoil will be evenly distributed.

Water courses and drainages will be established.

Erosion control devices and techniques will be installed where needed.

Seeding will be done in the fall, prior to ground freeze up.

The seed mix will be determined prior to seeding.

Monitoring and reporting will be conducted as stated in QEP's Reclamation Plan. A reference site and weed data sheet have been established and are included in this application.

Weed control will be conducted as stated in QEP's Reclamation Plan.

It was determined and agreed upon that there is 5" inches of top soil.

12. <u>Surface Ownership:</u>

Bureau of Land Management 170 South 500 East Vernal, Utah 84078 (435) 781-4400

13. Other Information:

A Class III archaeological survey was conducted by Montgomery Archaeology Consultants. A copy of this report was submitted on October 19, 2011, **State of Utah Antiquities Project U-11-MQ-0913b** by Montgomery Archaeology Consultants. Cultural resource clearance was recommended for this location.

A Class III paleontological survey was conducted by Intermountain Paleo Consulting. A copy of this report was submitted on October 14, 2011 IPC # 11-176 by Stephen D. Sandau. The inspection resulted in the location of no fossil resources. However, if vertebrate fossil(s) are found during construction a paleontologist should be immediately notified. QEP Energy Company will provide Paleo monitor if needed.





11002 East 17500 South Vernal, UT 84078 Telephone 435-781-4331 Fax 435-781-4395

January 26, 2012

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

RE: Directional Drilling R649-3-11
Red Wash Unit
RW 12C1-23B
T7S-R23E
Section 23:
1710' FSL, 2156' FWL, NESW, (Surface)
1800' FSL, 343' FWL, NWSW, (Bottom Hole)
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of QEP Energy Company Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649 -3-11 pertaining to the location and drilling of a directional well.

QEP Energy Company is permitting this well at this location for geological reasons. Locating the well at the surface location and directionally drilling from this location, QEP Energy Company will be able to minimize surface disturbance.

Furthermore, QEP Energy Company certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information QEP Energy Company requests the permit be granted pursuant to Rule R649-3-11.

Sincerely,

QEP Energy Company

Jan Nelson Permit Agent

Lessee's or Operator's Representative & Certification:

Valyn Davis Regulatory Affairs Analyst QEP Energy Company 11002 East 17500 South Vernal, UT 84078 (435) 781-4369

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

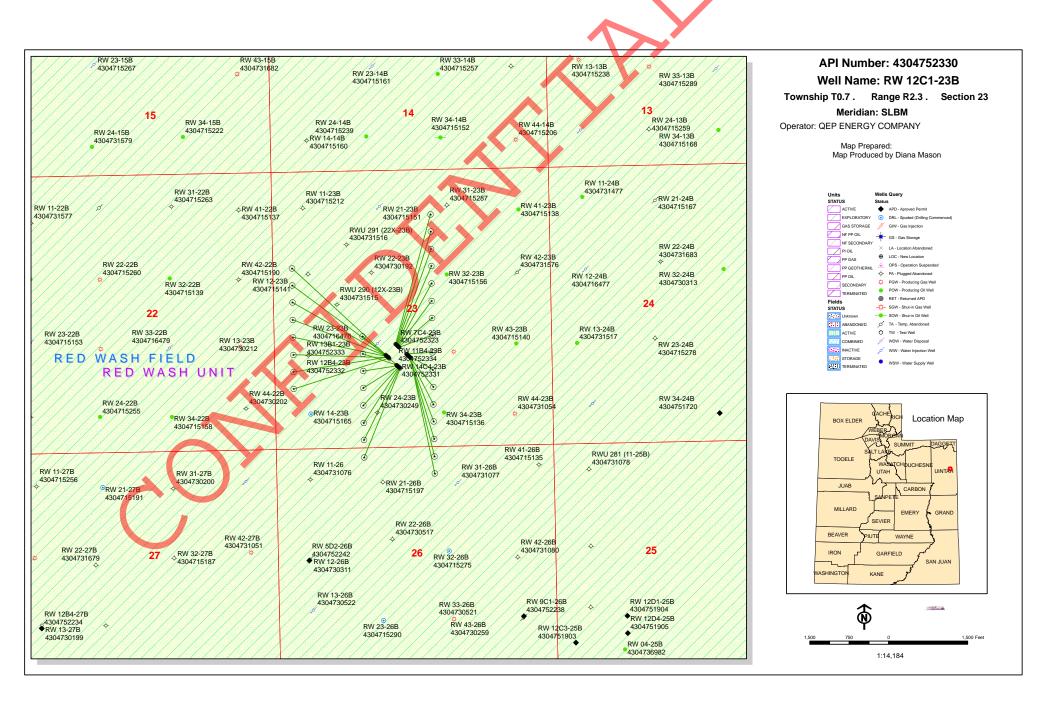
QEP Energy Company is considered to be the operator of the subject well. QEP Energy Company agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104.2 for lease activities is being provided by Bond No. ESB000024

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist, that I have full knowledge of the State and Federal laws applicable to this operations; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Valyn Waws
Valyn Davis

1/27/2012
Date



API Well Number: 43047523300000

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

February 7, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Red Wash Unit,

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2012 within the Red Wash Unit, Uintah County, Utah.

API#	WE	LL NAME			LOCATIO	ON		
(Proposed PZ	MES	SA VERDE)			X			
43-047-52303	RW	2C1-23B BHL			R23E R23E			
43-047-52304	RW	2C4-23B BHL	 4		R23E R23E			
43-047-52305	RW	7B1-23B BHL			R23E R23E		_	
43-047-52306	RW	7B4-23B BHL			R23E R23E		_	
43-047-52307	RW				R23E R23E			
43-047-52308	RW				R23E R23E			
43-047-52309	RW				R23E R23E		_	
43-047-52310	RW				R23E R23E		-	FWL FWL
43-047-52311	RW			T07S T07S	R23E R23E	1768 1829	_	

RECEIVED: February 14, 2012

API#	WELL NAME	LOCATION	
(Proposed PZ	MESA VERDE)		
43-047-52312		S R23E 1759 FSL S R23E 2153 FNL	
43-047-52313		S R23E 1707 FSL S R23E 0516 FNL	
43-047-52314		S R23E 1727 FSL S R23E 0144 FSL	
43-047-52315		S R23E 1756 FSL S R23E 1133 FSL	
43-047-52316		S R23E 1736 FSL S R23E 0476 FSL	
43-047-52317		S R23E 1765 FSL S R23E 1461 FSL	
43-047-52318		S R23E 1544 FSL S R23E 1142 FSL	
43-047-52319		S R23E 1746 FSL S R23E 0804 FSL	
43-047-52320		S R23E 1775 FSL S R23E 1793 FSL	
43-047-52321		S R23E 1553 FSL S R23E 1464 FSL	
43-047-52322		S R23E 1903 FSL S R23E 2123 FSL	
43-047-52323		S R23E 1922 FSL S R23E 2495 FNL	
43-047-52324		S R23E 1717 FSL S R23E 0186 FNL	
43-047-52325		S R23E 1505 FSL S R23E 0182 FNL	
43-047-52326		S R23E 1563 FSL S R23E 1796 FSL	
43-047-52327		S R23E 1749 FSL S R23E 2483 FNL	
43-047-52328		S R23E 1739 FSL S R23E 2469 FSL	
43-047-52329		S R23E 1720 FSL S R23E 1472 FSL	

Page 2

API Well Number: 43047523300000

Page 3 API# WELL NAME LOCATION (Proposed PZ MESA VERDE) 43-047-52330 RW 12C1-23B Sec 23 T07S R23E 1710 FSL 2156 FWL BHL Sec 23 T07S R23E 1800 FSL 0343 FWL 43-047-52331 RW 14C4-23B Sec 23 T07S R23E 1515 FSL 2361 FWL BHL Sec 23 T07S R23E 0149 FSL 1662 FWL 43-047-52332 RW 12B4-23B Sec 23 T07S R23E 1730 FSL 2136 FWL BHL Sec 23 T07S R23E 2132 FSL 0340 FWL 43-047-52333 RW 13B1-23B Sec 23 T07S R23E 1701 FSL 2166 FWL BHL Sec 23 T07S R23E 1150 FSL 0342 FWL 43-047-52334 RW 11B4-23B Sec 23 T07S R23E 1573 FSL 2300 FWL BHL Sec 23 T07S R23E 2127 FSL 1664 FWL

This office has no objection to permitting the wells at this time.

Michael L. Coulthard Digitally Sorred by Michael L. Coulthur Discribed by Localified and European United States of Minerals. email-Michael Coulthard@elbim.gov, c=US. Discribed by Localified and Coulthard. Discribed by Michael L. Coulthing Discribed by Michael L.

bcc: File - Red Wash Unit

Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:2-7-12

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 1/31/2012 **API NO. ASSIGNED:** 43047523300000

WELL NAME: RW 12C1-23B

OPERATOR: QEP ENERGY COMPANY (N3700) PHONE NUMBER: 435 781-4331

CONTACT: Jan Nelson

PROPOSED LOCATION: NESW 23 070S 230E Permit Tech Review:

SURFACE: 1710 FSL 2156 FWL Engineering Review:

BOTTOM: 1800 FSL 0343 FWL Geology Review:

COUNTY: UINTAH

LEASE TYPE: 1 - Federal

LATITUDE: 40.19248 LONGITUDE: -109.29597 UTM SURF EASTINGS: 645050.00 NORTHINGS: 4450513.00

FIELD NAME: RED WASH

LEASE NUMBER: UTU082 PROPOSED PRODUCING FORMATION(S): MESA VERDE

SURFACE OWNER: 1 - Federal COALBED METHANE: NO

LOCATION AND SITING:

Drilling Unit

R649-2-3.

RECEIVED AND/OR REVIEWED: ✓ PLAT

Oil Shale 190-13

▶ Bond: FEDERAL - ESB000024 **Unit:** RED WASH

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Water Permit: A36125 / 49-2153 Board Cause No: Cause 187-07

RDCC Review: Effective Date: 9/18/2001

Fee Surface Agreement Siting: Suspends General Siting

Intent to Commingle R649-3-11. Directional Drill

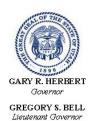
Commingling Approved

Comments:

Stipulations:

Presite Completed

4 - Federal Approval - dmason 15 - Directional - dmason API Well No: 43047523300000



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: RW 12C1-23B API Well Number: 43047523300000

Lease Number: UTU082 Surface Owner: FEDERAL Approval Date: 2/14/2012

Issued to:

QEP ENERGY COMPANY, 11002 East 17500 South, Vernal, Ut 84078

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 187-07. The expected producing formation or pool is the MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas

API Well No: 43047523300000

website

at http://oilgas.ogm.utah.gov

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
 - Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Sundry Number: 29587 API Well Number: 43047523300000

	STATE OF UTAH		FORM 9			
ι	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU082			
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	posals to drill new wells, significantly deel eenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME: RED WASH			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: RW 12C1-23B			
2. NAME OF OPERATOR: QEP ENERGY COMPANY			9. API NUMBER: 43047523300000			
3. ADDRESS OF OPERATOR: 11002 East 17500 South,		DNE NUMBER: 3-3068 Ext	9. FIELD and POOL or WILDCAT: RED WASH			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1710 FSL 2156 FWL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NESW Section: 2	IIP, RANGE, MERIDIAN: 23 Township: 07.0S Range: 23.0E Meridian:	S	STATE: UTAH			
11. CHECK	CAPPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:		CHANGE TUBING	CHANGE WELL NAME			
SUBSEQUENT REPORT		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
Date of Work Completion:		FRACTURE TREAT	☐ NEW CONSTRUCTION			
		PLUG AND ABANDON	☐ PLUG BACK			
SPUD REPORT Date of Spud:		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
9/4/2012		SIDETRACK TO REPAIR WELL	L TEMPORARY ABANDON			
DRILLING REPORT	L TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
Report Date:	☐ WATER SHUTOFF ☐	SI TA STATUS EXTENSION	APD EXTENSION			
	WILDCAT WELL DETERMINATION	OTHER	OTHER:			
ON 9/4/2012 - SET	COMPLETED OPERATIONS. Clearly show all per 40' OF 16" CONDUCTOR PIPE. READY MIX.	CEMENTED WITH	epths, volumes, etc. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 05, 2012			
NAME (PLEASE PRINT) Valyn Davis	PHONE NUMBER 435 781-4369	TITLE Regulatory Affairs Analyst				
SIGNATURE N/A		DATE 9/4/2012				

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FORM APPROVED OMB No. 1004-0137 Expires July 31, 2010

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

JAN 2 6 2012

′	Expires July 31,	2
5.	Lease Serial No.	_

UTU082

APPLICATION FOR PERMIT TO	DRILL	STATEMENT	UTAF	o. Il liulali, Alloice	OF THE IN	ame	
la. Type of work: DRILL REENTI	ER		- 	7 If Unit or CA Agreement, Name and No. 892000761X			0.
lb. Type of Well: Oil Well Gas Well Other		Single Zone Multip	ole Zone	8. Lease Name and RW 12C1-23B	Well No.		
2. Name of Operator QEP ENERGY COMPANY				9. API Well No.	2. 522	20	
3a. Address 11002 SOUTH 17500 EAST	3b. Phone N	0. (include area code)		10. Field and Pool, or			
VERNAL, UT 84078	(435) 781	•		RED WASH	Exploratory		
4. Location of Well (Report location clearly and in accordance with an	y State require	ments.*)		11. Sec., T. R. M. or B	lk.and Surv	ey or Are	
At surface NESW, 1710' FSL, 2156' FWL, 40.192483 N	LAT., 109.	296050 W LON.		SEC. 23, T7S, R23	BE, MER S	3LB	
At proposed prod. zone NWSW, 1800' FSL, 343' FWL, 40.1	92731 N L	AT., 109.302542 W	LON.				
 Distance in miles and direction from nearest town or post office* MILES +/- SOUTH EAST OF VERNAL, UTAH 				12. County or Parish UINTAH		13. State UT	_
15. Distance from proposed* 343' location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of 1280	acres in lease	17. Spacin 10	g Unit dedicated to this v	well		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 8770' FROM UNIT BOUNDARY LINE			ESB000	BLM/BIA Bond No. on file SB000024			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5625 GL		22. Approximate date work will start*		23. Estimated duration			
3023 GL	06/01/20			30 DAYS			
The following, completed in accordance with the requirements of Onshor	24. Atta		414 4- 41:	- C			
Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).		Bond to cover the ltem 20 above). Operator certific	ne operation	is unless covered by an	_		·
25. Signature Valen William		(Printed/Typed) YN DAVIS			Date 01/26/20)12	
Title REGULATORY AFFAIRS ANALYST							
Approved by (Signature)	Name	(Printed/Typed) Jerry	Kenc	zka	Date AU	G 0 1	2012
Title Assistant Field Manager Lands & Mineral Rescursos	Office	VERNA	L FIEL	D OFFICE			
Application approval does not warrant or certify that the applicant holds conduct operations thereon. Conditions of approval, if any, are attached.	legal or equ	itable title to those right	s in the subj	ect lease which would e	ntitle the ap	plicant to	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cri States any false, fictitious or fraudulent statements or representations as to	me for any poster of	person knowingly and w within its jurisdiction.	illfully to m	ake to any department of	r agency of	the Unit	ed

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DIV. OF OIL, GAS & MINING

UDOGM

(Continued on page 2)

NOTICE OF APPROVAL
CONDITIONS OF APPROVAL ATTACHED

CONFIDENTIAL

*(Instructions on page 2)

NOS-1/11/12

125X50251A2



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	QEP ENERGY COMPANY	Location:	NESW, Sec.23,T7S R23E
Well No:	RW 12C1-23B	Lease No:	UTU-082
API No:	43-047-52330	Agreement:	Red Wash

OFFICE NUMBER:

170 South 500 East

(435) 781-4400

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OFFICE FAX NUMBER:

(435) 781-3420

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A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	_	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

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Page 2 of 9 Well: RW 12C1-23B 8/9/2012

DIV. OF OIL, GAS & MINING SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
 work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
 mitigation may be necessary for the discovered paleontologic material before construction can
 continue.

Site Specific COA's

- When feasible, two or more rigs (including drilling and completion rigs) will not be run simultaneously within 200 meters of each other. If two or more rigs must be run simultaneously within 200 meters of each other, then effective public health buffer zones out to 200 meters (m) from the nearest emission source will be implemented. Examples of an effective public health protection buffer zone include the demarcation of a public access exclusion zone by signage at intervals of every 250 feet that is visible from a distance of 125 feet during daylight hours, and a physical buffer such as active surveillance to ensure the property is not accessible by the public during drilling operations. Alternatively, the proponent may demonstrate compliance with the 1-hour NO2 National Ambient Air Quality Standards (NAAQS) with appropriate and accepted near-field modeling. As part of this demonstration, the proponent may propose alternative mitigation that could include but is not limited to natural gas—fired drill rigs, installation of NOX controls, time/use restrictions, and/or drill rig spacing.
- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horse power must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour.
- Green completions would be used for all well completion activities where technically feasible.
- Employ enhanced VOC emission controls with 95% control efficiency on production equipment having a potential to emit greater than 5 tons per year.
- The reserve pit will be fenced on three sides prior to drilling activity and closed off on the fourth side after drilling is finished. The reserve pits for the wells will be lined with a 16 ml liner with felt.
- A dike will be constructed around those production facilities that contain fluids. The dikes will be constructed of compacted subsoil. They will be impervious, hold 10 percent more than the capacity of the largest tank, and be independent of the back cut.

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Page 3 of 9 Well: RW 12C1-23B 8/9/2012

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- All permanent (meaning on site for six months or longer) structures will be painted Covert Green to
 match the surrounding landscape color unless otherwise authorized. This will include all facilities
 except those required to comply with Occupational Safety and Health Act (OSHA) regulations.
- If dry, the wells will be plugged and abandoned as per BLM and State of Utah requirements.
- Prior to construction, an invasive plants/noxious weeds inventory will be completed for all areas
 where surface disturbance will occur. A completed Weed Inventory form documenting any
 occurrences of invasive plants or noxious weeds will be submitted to the BLM Authorized Officer
 before surface disturbance will occur.
- All vehicles and equipment would be cleaned either through power-washing, or other approved method, if the vehicles or equipment are brought in from areas outside the Uinta Basin, to prevent weed seed introduction.
- The operator will control noxious/invasive weeds along their roads, pipelines, well sites, or other applicable facilities by the application of herbicides or by mechanical removal until reclamation is considered to be successful by the authorized officer (AO) and the bond for the well is released. A list of noxious weeds will be obtained from the BLM or the appropriate county extension office. On BLM-administered land, the operator will submit a Pesticide Use Proposal and obtain approval prior to the application of herbicides, other pesticides, or possible hazardous chemicals.
- Immediately upon well completion, the location and surrounding area shall be cleared of all unused tubing, equipment, debris, materials, and trash. Any hydrocarbons in the pit will be removed in accordance with 43 CFR 3162.7-1.
- The reserve pit and the portion of the well not needed for production facilities/operations shall be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 120 days from the date of well completion, or as soon as environmental conditions allow. The stockpiled pit topsoil will then be spread over the pit area and broadcast-seeded/drill seeded (preferred method) with a seed mix submitted to the BLM Authorized Officer (AO) for approval prior to seeding. Seeding will be done in the fall prior to winter freezing of the soil. The seed mixture shall be worked into the topsoil with a drill seeder, bulldozer or other heavy equipment. If initial seeding is not successful, reseeding may be required.
- Once the well is plugged and facilities are removed and abandoned, the topsoil shall be stripped and stockpiled off of the location, and the well site, pipelines, and access roads will be returned to natural contours. The topsoil shall be respread, and the location seeded with the mixture submitted to the BLM AO. The seed mixture shall be worked into the topsoil with a drill seeder, bulldozer or other heavy equipment.
- Interim reclamation, final reclamation, and monitoring of reclaimed areas will be completed in accordance with the QEP Energy Company, Uinta Basin Division's Reclamation Plan, September 2009 on file with the Vernal Field Office of the BLM.
- Prior to any surface disturbance, vegetative monitoring locations and reference sites will be identified by QEP and approved by the BLM AO. Vegetation monitoring protocol will be developed by QEP and approved by the BLM AO prior to implementation of revegetation techniques and will be designed to monitor % basal vegetative cover.
- Revegetated areas will be inspected annually and monitored to document location and extent of areas with successful revegetation, and areas needing further reclamation (for a period of 5 years after construction completion). A reclamation report will be submitted to the AO by March 31 of each year.

Page 4 of 9 Well: RW 12C1-23B 8/9/2012

• QEP has agreed not to construct or drill during the following dates, unless otherwise determined by the BLM Authorized Officer.

Table 2-2 Raptor nesting timing restriction

Well Name	Burrowing Owl: March 1 to August 31
CPF	Yes
RW 23-23B Pad	No
RW 44-22B Pad	No
RW 43-27B Pad	No

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Yes indicates QEP would not drill or construct during this time period.

QEP will educate its contractors and employees about the relevant federal regulations intended to
protect paleontological and cultural resources. All vehicular traffic, personnel movement,
construction, and restoration activities shall be confined to areas cleared by the site inventory and
to existing roads. If any potential paleontological or cultural resources are uncovered during
construction, work will stop immediately in the area and the appropriate BLM AO will be notified.

Page 5 of 9 Well: RW 12C1-23B 8/9/2012

DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

• Gamma ray Log shall be run from Total Depth to Surface.

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CBL will be run from TD to TOC.

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Variances Granted:

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Air Drilling

- Properly lubricated and maintained rotating head. Variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore. Variance granted for blooie line discharge to be 50' to 70' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for truck/trailer mounted air compressors located 50' from the well bore.
- In lieu of mud products on location, operator will fill a 400 bbl tank with water for the kill medium.
- Automatic igniter. Variance granted for igniter, a diffuser will be used instead. Operator will mount a
 deflector at the end of the blooie line to change direction and reduce the velocity of the cuttings flow
 to the reserve pit.
- Flare pit. Variance granted, there is no need of a flare during the drilling of the surface hole.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- <u>Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.</u>
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a

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Page 6 of 9 Well: RW 12C1-23B 8/9/2012

test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
 encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
 Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
 Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

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Page 7 of 9 Well: RW 12C1-23B 8/9/2012

OPERATING REQUIREMENT REMINDERS:

DIV. OF OIL, GAS & MINING

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of

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Page 8 of 9 Well: RW 12C1-23B 8/9/2012

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the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
 Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
 future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
 BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
 hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
 be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to
 the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first.
 All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All
 product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in
 accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
 lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
 suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
 obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior approval
 of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
 approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
 of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of

Page 9 of 9 Well: RW 12C1-23B 8/9/2012

Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

RECEIVED AUG 2 4 2012

DIV. OF OIL, GAS & MINING

BLM - Vernal Field Office - Notification Form
Operator Rig Name # Ris 16 Submitted By Floyd Martine
Phone Number <u>435-828-0375</u>
OtriOtrice Section 2 7 IOWISHIP Z Range 200
Lease Serial Number <u>UTIL 082</u> API Number <u>430 425 23300000</u>
Spud Notice – Spud is the initial spudding of the well, not drilling
out below a casing string.
Date/Time Sept 4 AM DPM X
<u>Casing</u> – Please report time casing run starts, not cementing times.
Surface Casing
Intermediate Casing Production Casing
Liner
▼ Other
Date/Time AM
BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point SEP 0 4 2012
30 day BOPE test
Other DIV. OF OIL, GAS & MINING
Date/Time AM PM
Remarks Spud Conductors

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM							
Operator:	QEP ENERGY COMPA	NY	Operator Account Number: N 3700				
Address:	11002 EAST 17500 SO	UTH					
	city VERNAL						
	state UT	zip 84078	Phone Number: (435) 781-4369				

Well 1

Comments: WMMI						Urini	
В	99999	18478		9/4/2012	2	91	21 12012
Action Code	Current Entity Number	New Entity Number	s	pud Dai	Θ		tity Assignment Effective Date
4304752330	RW 12C1-23B		NESW	23	7S	23E	UINTAH
API Number	Well	Name	QQ	Sec	Twp	Rng	County

WALLS

Comments: WMMF	D					MI	
В	99999	18478		9/4/2012	2	91	21 13013
Action Code	Current Entity Number	New Entity Number	Si	oud Dai	:e		tity Assignment Effective Date
4304752329	RW 12C4-23B		NESW	23	7 S	23E	HATNIU
API Number	Wel	l Name	QQ	Sec	Twp	Rng	County

Well 3

API Number	Well	Name	QQ	Sec	Twp	Rng	County
4304752333	RW 13B1-23B		NESW	23	78	23E	UINTAH
Action Code	Current Entity Number	New Entity Number	s	pud Da	te	# 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ily Assignment ffective Date
В	99999	18478		9/2/201	2	91	21 12012
Comments: WMM	FD	<u> </u>			·	1	<u> </u>

BHL: SUSW

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section) ECEIVED

Valyn Davis

Name (Please Print)

Signature

Regulatory Affairs Analyst

9/10/2012

Title

Date

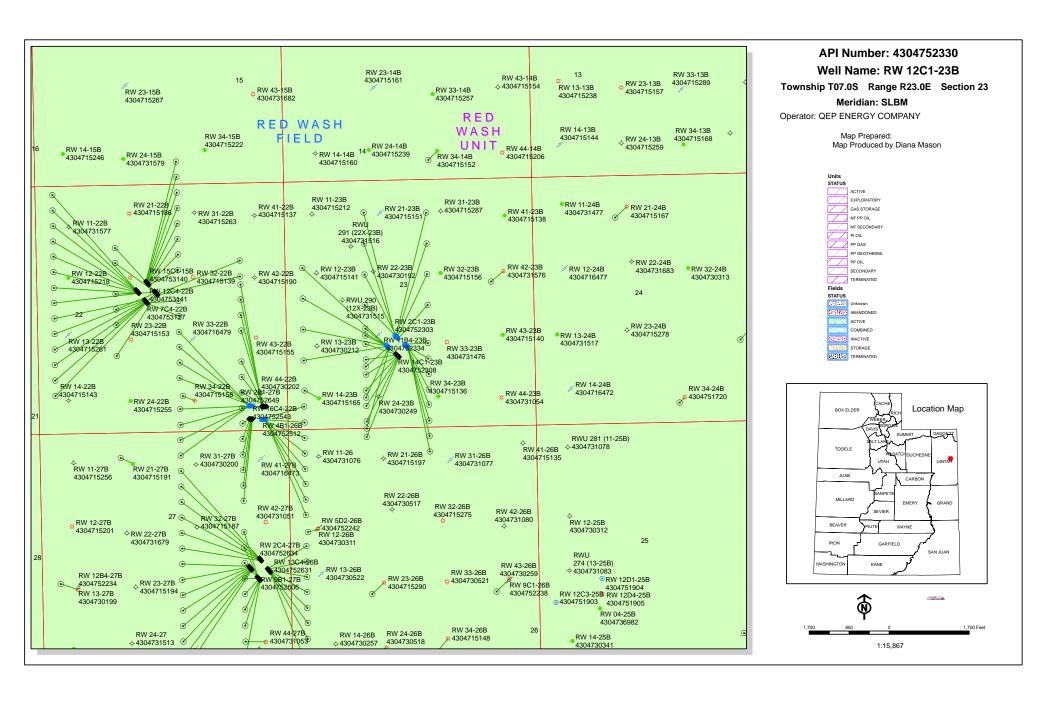
SEP 1 0 2012

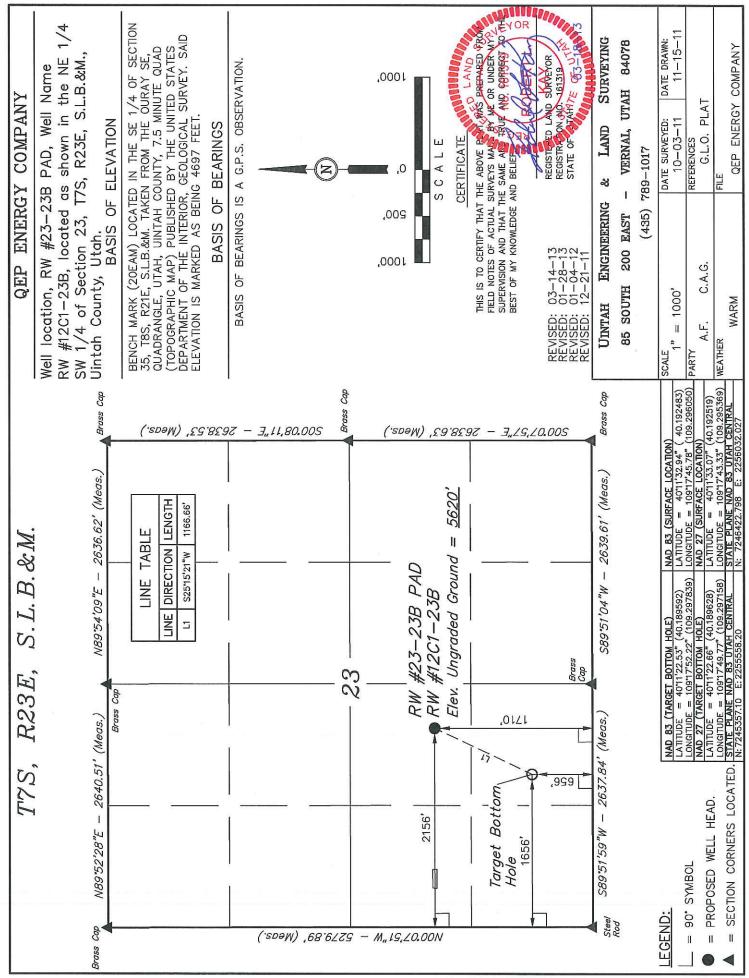
(5/2000)

	STATE OF UTAH		FORM 9
ι	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MII		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU082
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	oposals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.	deepen existing wells below ontal laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: RED WASH
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: RW 12C1-23B
2. NAME OF OPERATOR: QEP ENERGY COMPANY	9. API NUMBER: 43047523300000		
3. ADDRESS OF OPERATOR: 11002 East 17500 South ,	9. FIELD and POOL or WILDCAT: RED WASH		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1710 FSL 2156 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 23 Township: 07.0S Range: 23.0E Meri	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
✓ DRILLING REPORT	L TUBING REPAIR	☐ VENT OR FLARE ☐	☐ WATER DISPOSAL ☐
Report Date: 2/28/2013	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
NO ACTIVITY ON TH	COMPLETED OPERATIONS. Clearly show	TH OF FEBRUARY 2013.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY March 25, 2013
NAME (PLEASE PRINT) Valyn Davis	PHONE NUM 435 781-4369	BER TITLE Regulatory Affairs Analyst	
SIGNATURE N/A		DATE 3/25/2013	

	STATE OF UTAH		FORM 9						
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU082						
SUNDR	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:						
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME: RED WASH						
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: RW 12C1-23B						
2. NAME OF OPERATOR: QEP ENERGY COMPANY			9. API NUMBER: 43047523300000						
3. ADDRESS OF OPERATOR: 11002 East 17500 South,	3. ADDRESS OF OPERATOR: 11002 East 17500 South , Vernal, Ut, 84078 PHONE NUMBER: 303 308-3068 Ext								
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1710 FSL 2156 FWL			COUNTY: UINTAH						
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 23 Township: 07.0S Range: 23.0E Meridian:	S	STATE: UTAH						
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA						
TYPE OF SUBMISSION		TYPE OF ACTION							
	ACIDIZE	ALTER CASING	CASING REPAIR						
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME						
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE						
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION						
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK						
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION						
Date of Spud:		SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON						
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL						
✓ DRILLING REPORT									
Report Date: 3/31/2013	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION						
	WILDCAT WELL DETERMINATION	OTHER	OTHER:						
	COMPLETED OPERATIONS. Clearly show all per THIS WELL DURING THE MONT		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY April 02, 2013						
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE Regulatory Affairs Analyst							
Valyn Davis	435 781-4369	Regulatory Affairs Analyst							
SIGNATURE N/A		DATE 4/1/2013							

	STATE OF UTAH		FORM 9						
1	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU082						
SUNDR	RY NOTICES AND REPORTS OF	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:						
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	oposals to drill new wells, significantly de- reenter plugged wells, or to drill horizonta n for such proposals.	epen existing wells below al laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: RED WASH						
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: RW 12C1-23B						
2. NAME OF OPERATOR: QEP ENERGY COMPANY			9. API NUMBER: 43047523300000						
3. ADDRESS OF OPERATOR: 11002 East 17500 South ,		HONE NUMBER: 08-3068 Ext	9. FIELD and POOL or WILDCAT: RED WASH						
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1710 FSL 2156 FWL			COUNTY: UINTAH						
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 23 Township: 07.0S Range: 23.0E Meridiar	n: S	STATE: UTAH						
11. CHECI	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA						
TYPE OF SUBMISSION		TYPE OF ACTION							
7	ACIDIZE	ALTER CASING	CASING REPAIR						
NOTICE OF INTENT Approximate date work will start:	✓ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME						
4/1/2013	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE						
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION						
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK						
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION						
SPUD REPORT Date of Spud:		1							
Date of Spud.	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON						
	L TUBING REPAIR	VENT OR FLARE	☐ WATER DISPOSAL						
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION						
	WILDCAT WELL DETERMINATION	OTHER	OTHER:						
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. QEP ENERGY COMPANY WOULD LIKE TO OPTIMIZE THE BOTTOM HOLE SPACING OF THE MESA VERDE DEVELOPMENT. THEREFORE, QEP ENERGY COMPANY REQUESTS TO CHANGE THE BOTTOM HOLE LOCATION FOR THE ABOVE MENTIONED WELL. NEW BOTTOM HOLE FOOTAGES ARE: 656' FSL, 1656' FWL, SESW, SEC. 23, T7S, R23E LATITUDE: 40.189592, LONGITUDE: 109.297839. PLEASE SEE ATTACHED: LEGAL PLAT DIRECTIONAL PLANS OTHER: Approved by the Utah Division of Oil, Gas and Mining Date: April 09, 2013 By:									
NAME (PLEASE PRINT) Valyn Davis	PHONE NUMBER 435 781-4369	TITLE Regulatory Affairs Analyst							
SIGNATURE	TOU 101-4303	DATE							
N/A		4/1/2013							







QEP ENERGY (UT)

Red Wash 23-23B PAD RW 12C1-23B

Original Hole

Plan: Plan ver.0

Standard Planning Report

20 March, 2013





Design:

QEP Resources, Inc.

Planning Report



 Database:
 EDM_QEP

 Company:
 QEP ENERGY (UT)

 Project:
 Red Wash

 Site:
 23-23B PAD

 Well:
 RW 12C1-23B

 Wellbore:
 Original Hole

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Well RW 12C1-23B RKB @ 5642.30usft (SST 54) RKB @ 5642.30usft (SST 54) True

Project Red Wash

Map System: US State Plane 1983

Geo Datum: North American Datum 1983

Plan ver.0

Map Zone: Utah Central Zone

Mean Sea Level

Using geodetic scale factor

Minimum Curvature

23-23B PAD Site Northing: 7,246,686.310 usft Site Position: Latitude: 40.193199 From: Мар Easting: 2,256,158.369 usft Longitude: -109.295575 **Position Uncertainty:** 0.00 usft Slot Radius: 13-3/16 " **Grid Convergence:** 1.41 9

System Datum:

Well RW 12C1-23B, **Well Position** +N/-S -260.34 usft Northing: 7,246,422.798 usft Latitude: 40.192484 +E/-W -132.81 usft Easting: 2,256,032.027 usft Longitude: -109.296050 **Position Uncertainty** 0.00 usft Wellhead Elevation: 5,625.30 usft **Ground Level:** 5,625.30 usft

Wellbore Original Hole Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) (°) IGRF2010 12/7/2011 10.95 66.05 52,408

Design Plan ver.0 **Audit Notes:** Version: Phase: PLAN Tie On Depth: 0.00 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.00 0.00 0.00 205.38

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,169.23	9.38	205.38	1,167.13	-34.64	-16.44	2.00	2.00	0.00	205.38	
7,773.64	9.38	205.38	7,683.16	-1,007.60	-478.07	0.00	0.00	0.00	0.00	
8,399.28	0.00	0.00	8,306.00	-1,053.79	-499.98	1.50	-1.50	0.00	180.00	
11,117.28	0.00	0.00	11,024.00	-1,053.79	-499.98	0.00	0.00	0.00	0.00	

3/20/2013 11:44:31AM Page 2 COMPASS 5000.1 Build 65

RECEIVED: Apr. 01, 2013



Design:

QEP Resources, Inc.

Planning Report



Database: EDM_QEP

Company: QEP ENERGY (UT)

Project: Red Wash
Site: 23-23B PAD
Well: RW 12C1-23B
Wellbore: Original Hole

Plan ver.0

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well RW 12C1-23B

RKB @ 5642.30usft (SST 54) RKB @ 5642.30usft (SST 54)

True

Minimum Curvature

od Survey									
ed Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	2.00	205.38	799.98	-1.58	-0.75	1.75	2.00	2.00	0.00
900.00	4.00	205.38	899.84	-6.30	-2.99	6.98	2.00	2.00	0.00
1,000.00	6.00 8.00	205.38 205.38	999.45 1,098.70	-14.18 -25.19	-6.73 -11.95	15.69 27.88	2.00 2.00	2.00 2.00	0.00
1,100.00	8.00 9.38	205.38	1,098.70	-25.19 -34.64	-11.95 -16.44	38.34	2.00	2.00	0.00 0.00
1,169.23 1,200.00	9.38	205.38	1,167.13	-34.64 -39.17	-16.44 -18.59	38.34 43.36	0.00	0.00	0.00
1,300.00	9.38	205.38	1,197.49	-53.91	-25.58	59.67	0.00	0.00	0.00
1,400.00 1,500.00	9.38 9.38	205.38 205.38	1,394.82 1,493.48	-68.64 -83.37	-32.57 -39.56	75.97 92.28	0.00 0.00	0.00 0.00	0.00 0.00
1,600.00	9.38	205.38	1,592.14	-98.10	-39.50 -46.55	108.58	0.00	0.00	0.00
1,700.00	9.38	205.38	1,690.80	-112.83	-53.54	124.89	0.00	0.00	0.00
1,800.00	9.38	205.38	1,789.46	-112.63	-60.52	141.20	0.00	0.00	0.00
			,						
1,900.00	9.38	205.38	1,888.12 1,986.79	-142.30	-67.51	157.50	0.00	0.00	0.00
2,000.00 2,100.00	9.38 9.38	205.38 205.38	2,085.45	-157.03 -171.76	-74.50 -81.49	173.81 190.11	0.00 0.00	0.00 0.00	0.00 0.00
2,100.00	9.38	205.38	2,065.45	-171.76	-88.48	206.42	0.00	0.00	0.00
2,300.00	9.38	205.38	2,184.11	-201.23	-95.47	222.73	0.00	0.00	0.00
2,400.00	9.38	205.38	2,381.43	-215.96	-102.46	239.03	0.00	0.00	0.00
2,500.00	9.38	205.38	2,480.09	-230.69	-109.45	255.34	0.00	0.00	0.00
2,600.00	9.38	205.38	2,578.76	-245.42	-116.44	271.64	0.00	0.00	0.00
2,700.00	9.38	205.38	2,677.42	-260.15	-123.43	287.95	0.00	0.00	0.00
2,800.00	9.38	205.38	2,776.08	-274.88	-130.42	304.26	0.00	0.00	0.00
2,873.91	9.38	205.38	2,849.00	-285.77	-135.59	316.31	0.00	0.00	0.00
Green River									
2,900.00	9.38	205.38	2,874.74	-289.62	-137.41	320.56	0.00	0.00	0.00
3,000.00	9.38	205.38	2,973.40	-304.35	-144.40	336.87	0.00	0.00	0.00
3,089.80	9.38	205.38	3,062.00	-317.58	-150.68	351.51	0.00	0.00	0.00
Top of Birds N 3,100.00	l est 9.38	205.38	3,072.06	-319.08	-151.39	353.17	0.00	0.00	0.00
*									
3,200.00	9.38	205.38	3,170.73	-333.81	-158.38	369.48	0.00	0.00	0.00
3,300.00	9.38	205.38	3,269.39	-348.54	-165.37	385.79	0.00	0.00	0.00
3,308.73	9.38	205.38	3,278.00	-349.83	-165.98	387.21	0.00	0.00	0.00
Base of Birds		205.00	2 200 05	202.00	470.00	400.00	0.00	0.00	0.00
3,400.00	9.38	205.38	3,368.05	-363.28	-172.36	402.09	0.00	0.00	0.00
3,500.00	9.38	205.38	3,466.71	-378.01	-179.35	418.40	0.00	0.00	0.00
3,600.00	9.38	205.38	3,565.37	-392.74	-186.34	434.70	0.00	0.00	0.00
3,612.80	9.38	205.38	3,578.00	-394.63	-187.23	436.79	0.00	0.00	0.00
Mahogony Be									
3,663.48	9.38	205.38	3,628.00	-402.09	-190.78	445.05	0.00	0.00	0.00
7-5/8"									
3,700.00	9.38	205.38	3,664.03	-407.47	-193.33	451.01	0.00	0.00	0.00
3,800.00	9.38	205.38	3,762.69	-422.20	-200.32	467.32	0.00	0.00	0.00
3,900.00	9.38	205.38	3,861.36	-436.94	-207.31	483.62	0.00	0.00	0.00
4,000.00	9.38	205.38	3,960.02	-451.67	-214.30	499.93	0.00	0.00	0.00
4,100.00	9.38	205.38	4,058.68	-466.40	-221.29	516.23	0.00	0.00	0.00
4,200.00	9.38	205.38	4,157.34	-481.13	-228.28	532.54	0.00	0.00	0.00



QEP Resources, Inc.

Planning Report



Database: EDM_QEP

Company: QEP ENERGY (UT)

 Project:
 Red Wash

 Site:
 23-23B PAD

 Well:
 RW 12C1-23B

 Wellbore:
 Original Hole

 Design:
 Plan ver.0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well RW 12C1-23B

RKB @ 5642.30usft (SST 54) RKB @ 5642.30usft (SST 54)

True

Minimum Curvature

II.	Flair ver.u								
ned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,300.00	9.38	205.38	4,256.00	-495.86	-235.27	548.85	0.00	0.00	0.00
4,400.00	9.38	205.38	4,354.66	-510.60	-242.26	565.15	0.00	0.00	0.00
4,500.00	9.38	205.36	4,453.33	-525.33	-242.26 -249.25	581.46	0.00	0.00	0.00
4,600.00	9.38	205.38	4,551.99	-540.06	-249.23	597.76	0.00	0.00	0.00
4,700.00	9.38	205.38	4,650.65	-554.79	-263.23	614.07	0.00	0.00	0.00
4,800.00	9.38	205.38	4,749.31	-569.52	-270.22	630.38	0.00	0.00	0.00
4,900.00 5,000.00	9.38 9.38	205.38 205.38	4,847.97 4,946.63	-584.26	-277.21 -284.20	646.68 662.99	0.00 0.00	0.00 0.00	0.00 0.00
5,100.00	9.38	205.36	5,045.30	-598.99 -613.72	-204.20 -291.19	679.29	0.00	0.00	0.00
5,200.00	9.38	205.38	5,143.96	-628.45	-291.19	695.60	0.00	0.00	0.00
5,300.00	9.38	205.38	5,242.62	-643.18	-305.17	711.91	0.00	0.00	0.00
5,400.00	9.38	205.38	5,341.28	-657.92	-312.16	728.21	0.00	0.00	0.00
5,500.00	9.38	205.38	5,439.94	-672.65	-319.15	744.52	0.00	0.00	0.00
5,600.00	9.38	205.38	5,538.60	-687.38	-326.13	760.82	0.00	0.00	0.00
5,603.44	9.38	205.38	5,542.00	-687.89	-326.38	761.39	0.00	0.00	0.00
5,700.00	9.38	205.38	5,637.27	-702.11	-333.12	777.13	0.00	0.00	0.00
5,800.00	9.38	205.38	5,735.93	-716.84	-340.11	793.44	0.00	0.00	0.00
5,900.00	9.38	205.38	5,834.59 5,933.25	-731.57	-347.10	809.74	0.00	0.00	0.00
6,000.00 6,100.00	9.38 9.38	205.38 205.38	6,031.91	-746.31 -761.04	-354.09 -361.08	826.05 842.35	0.00 0.00	0.00 0.00	0.00 0.00
6,171.04	9.38	205.38	6,102.00	-761.04 -771.50	-366.05	853.94	0.00	0.00	0.00
Wasatch	3.30	200.00	0,102.00	-771.50	-300.03	000.04	0.00	0.00	0.00
6,200.00	9.38	205.38	6,130.57	-775.77	-368.07	858.66	0.00	0.00	0.00
6,300.00	9.38	205.38	6,229.24	-790.50	-375.06	874.97	0.00	0.00	0.00
6,400.00 6,500.00	9.38 9.38	205.38 205.38	6,327.90 6,426.56	-805.23 -819.97	-382.05 -389.04	891.27 907.58	0.00 0.00	0.00 0.00	0.00 0.00
6,600.00	9.38	205.38	6,525.22	-834.70	-396.03	923.88	0.00	0.00	0.00
6,700.00	9.38	205.38	6,623.88	-849.43	-403.02	940.19	0.00	0.00	0.00
6,800.00	9.38	205.38	6,722.54	-864.16	-410.01	956.50	0.00	0.00	0.00
6,900.00	9.38	205.38	6,821.20	-878.89	-417.00	972.80	0.00	0.00	0.00
7,000.00 7,100.00	9.38 9.38	205.38 205.38	6,919.87 7,018.53	-893.63 -908.36	-423.99 -430.98	989.11 1,005.41	0.00 0.00	0.00 0.00	0.00 0.00
7,100.00			7,010.33	-906.30		1,005.41			
7,200.00	9.38	205.38	7,117.19	-923.09	-437.97	1,021.72	0.00	0.00	0.00
7,300.00	9.38	205.38	7,215.85	-937.82	-444.96	1,038.03	0.00	0.00	0.00
7,400.00	9.38	205.38	7,314.51	-952.55	-451.95	1,054.33	0.00	0.00	0.00
7,500.00	9.38	205.38	7,413.17	-967.29	-458.94	1,070.64	0.00	0.00	0.00
7,600.00	9.38	205.38	7,511.84	-982.02	-465.93	1,086.94	0.00	0.00	0.00
7,700.00	9.38	205.38	7,610.50	-996.75	-472.92	1,103.25	0.00	0.00	0.00
7,773.64	9.38	205.38	7,683.16	-1,007.60	-478.07	1,115.26	0.00	0.00	0.00
7,800.00	8.99	205.38	7,709.17	-1,011.40	-479.87	1,119.47	1.50	-1.50	0.00
7,900.00	7.49	205.38	7,808.14	-1,024.35	-486.01	1,133.80	1.50	-1.50	0.00
8,000.00	5.99	205.38	7,907.45	-1,034.95	-491.04	1,145.53	1.50	-1.50	0.00
8,100.00	4.49	205.38	8,007.02	-1,043.20	-494.96	1,154.66	1.50	-1.50	0.00
8,200.00	2.99	205.38	8,106.81	-1,049.09	-497.75	1,161.18	1.50	-1.50	0.00
8,300.00	1.49	205.38	8,206.73	-1,052.62	-499.43	1,165.09	1.50	-1.50	0.00
8,399.28	0.00	0.00	8,306.00	-1,053.79	-499.98	1,166.38	1.50	-1.50	0.00
Mesaverde	2.22	6.00	0.400.70	4.050.70	400.00	4 400 00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,406.72	-1,053.79	-499.98	1,166.38	0.00	0.00	0.00
8,600.00	0.00	0.00	8,506.72	-1,053.79	-499.98	1,166.38	0.00	0.00	0.00
8,700.00	0.00	0.00	8,606.72	-1,053.79	-499.98	1,166.38	0.00	0.00	0.00
8,800.00	0.00	0.00	8,706.72	-1,053.79	-499.98	1,166.38	0.00	0.00	0.00
8,900.00	0.00	0.00	8,806.72	-1,053.79	-499.98	1,166.38	0.00	0.00	0.00

RECEIVED: Apr. 01, 2013



Well:

QEP Resources, Inc.

Planning Report



Database: Company: Project: Site:

EDM_QEP QEP ENERGY (UT) Red Wash

23-23B PAD RW 12C1-23B Wellbore: Original Hole Design: Plan ver.0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well RW 12C1-23B

RKB @ 5642.30usft (SST 54) RKB @ 5642.30usft (SST 54)

True

Minimum Curvature

ned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,000.00	0.00	0.00	8,906.72	-1,053.79	-499.98	1,166.38	0.00	0.00	0.00
9,100.00 9,200.00 9,300.00 9,400.00 9,500.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	9,006.72 9,106.72 9,206.72 9,306.72 9,406.72	-1,053.79 -1,053.79 -1,053.79 -1,053.79 -1,053.79	-499.98 -499.98 -499.98 -499.98 -499.98	1,166.38 1,166.38 1,166.38 1,166.38 1,166.38	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
9,600.00 9,700.00 9,800.00 9,900.00 10,000.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	9,506.72 9,606.72 9,706.72 9,806.72 9,906.72	-1,053.79 -1,053.79 -1,053.79 -1,053.79 -1,053.79	-499.98 -499.98 -499.98 -499.98 -499.98	1,166.38 1,166.38 1,166.38 1,166.38 1,166.38	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
10,100.00 10,200.00 10,300.00 10,365.28	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	10,006.72 10,106.72 10,206.72 10,272.00	-1,053.79 -1,053.79 -1,053.79 -1,053.79	-499.98 -499.98 -499.98 -499.98	1,166.38 1,166.38 1,166.38 1,166.38	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
Neslen									
10,400.00 10,500.00 10,600.00 10,700.00 10,736.28	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	10,306.72 10,406.72 10,506.72 10,606.72 10,643.00	-1,053.79 -1,053.79 -1,053.79 -1,053.79 -1,053.79	-499.98 -499.98 -499.98 -499.98	1,166.38 1,166.38 1,166.38 1,166.38 1,166.38	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
Lower Nesle									
10,800.00 10,900.00 10,917.28	0.00 0.00 0.00	0.00 0.00 0.00	10,706.72 10,806.72 10,824.00	-1,053.79 -1,053.79 -1,053.79	-499.98 -499.98 -499.98	1,166.38 1,166.38 1,166.38	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
Sego 11,000.00 11,100.00 11,117.28	0.00 0.00 0.00	0.00 0.00 0.00	10,906.72 11,006.72 11,024.00	-1,053.79 -1,053.79 -1,053.79	-499.98 -499.98 -499.98	1,166.38 1,166.38 1,166.38	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
RW 12C1-32B - plan hits target cen - Circle (radius 150.0		0.00	8,306.00	-1,053.79	-499.98	7,245,357.100	2,255,558.200	40.189592	-109.297840

Casing Po	pints					
	Measured	Vertical		Casing	Hole	
	Depth	Depth		Diameter	Diameter	
	(usft)	(usft)	Name	(")	(")	
	3,663.48	3,628.00 7-5/8"		7-5/8	9-7/8	



QEP Resources, Inc.

Planning Report



Database: EDM_QEP

Company: QEP ENERGY (UT)
Project: Red Wash
Site: 23-23B PAD

Well: RW 12C1-23B
Wellbore: Original Hole
Design: Plan ver.0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well RW 12C1-23B

RKB @ 5642.30usft (SST 54) RKB @ 5642.30usft (SST 54)

True

Minimum Curvature

Formations							
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	2,873.91	2,849.00	Green River				
	3,089.80	3,062.00	Top of Birds Nest				
	3,308.73	3,278.00	Base of Birds Nest				
	3,612.80	3,578.00	Mahogony Bench				
	5,603.44	5,542.00	Base of Mod Saline				
	6,171.04	6,102.00	Wasatch				
	8,399.28	8,306.00	Mesaverde				
	10,365.28	10,272.00	Neslen				
	10,736.28	10,643.00	Lower Neslen				
	10,917.28	10,824.00	Sego				

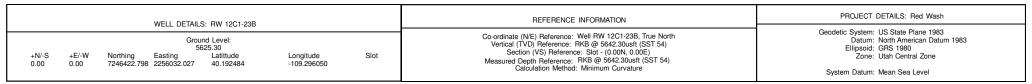
RECEIVED: Apr. 01, 2013

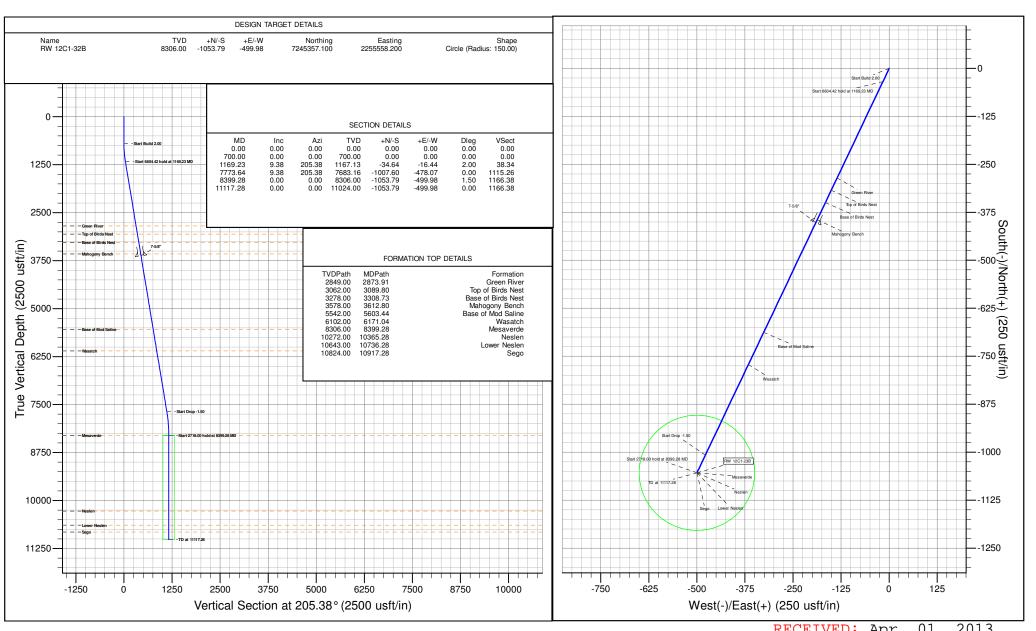


Company Name: QEP ENERGY (UT)



Project: Red Wash Site: 23-23B PAD Well: RW 12C1-23B Wellbore: Original Hole Design: Plan ver.0





Apr. 01,

	STATE OF UTAH			F	ORM 9
I	DEPARTMENT OF NATURAL RESOL DIVISION OF OIL, GAS, AND N		i	5.LEASE DESIGNATION AND SERIAL NU UTU082	MBER:
SUNDR	Y NOTICES AND REPORT	SON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAM	IE:
	posals to drill new wells, significan reenter plugged wells, or to drill hor n for such proposals.			7.UNIT or CA AGREEMENT NAME: RED WASH	
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: RW 12C1-23B	
2. NAME OF OPERATOR: QEP ENERGY COMPANY	9. API NUMBER: 43047523300000				
3. ADDRESS OF OPERATOR: 11002 East 17500 South ,	Vernal, Ut, 84078 3	NE NUMBER: -3068 Ext	9. FIELD and POOL or WILDCAT: RED WASH		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1710 FSL 2156 FWL				COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NESW Section: 2	HP, RANGE, MERIDIAN: 23 Township: 07.0S Range: 23.0E M	eridian:	S	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDIC	CATE NA	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		LITER CASING	CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHANGE WELL NAME	
SUBSEQUENT REPORT	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE	
Date of Work Completion:	DEEPEN	☐ F	RACTURE TREAT	☐ NEW CONSTRUCTION	
	OPERATOR CHANGE	∐ P	LUG AND ABANDON	PLUG BACK	
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	R	ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION	
23.0 3.0 \$\text{\$\text{\$\pi_{3.00}}}	REPERFORATE CURRENT FORMATION		IDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
7	TUBING REPAIR	v	ENT OR FLARE	WATER DISPOSAL	
DRILLING REPORT Report Date:	WATER SHUTOFF	□s	I TA STATUS EXTENSION	APD EXTENSION	
4/30/2013	WILDCAT WELL DETERMINATION		OTHER	OTHER:	
	COMPLETED OPERATIONS. Clearly sho			Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONL May 02, 2013	. Y
NAME (PLEASE PRINT) Valyn Davis	PHONE NU 435 781-4369	MBER	TITLE Regulatory Affairs Analyst		
SIGNATURE N/A			DATE 5/2/2013		

RECEIVED: May. 02, 2013

	STATE OF UTAH		FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU082
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.			7.UNIT or CA AGREEMENT NAME: RED WASH
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: RW 12C1-23B
2. NAME OF OPERATOR: QEP ENERGY COMPANY			9. API NUMBER: 43047523300000
3. ADDRESS OF OPERATOR: 11002 East 17500 South ,	Vernal, Ut, 84078 30	PHONE NUMBER: 3 308-3068 Ext	9. FIELD and POOL or WILDCAT: RED WASH
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1710 FSL 2156 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESW Section: 23 Township: 07.0S Range: 23.0E Meridian: S			STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:			
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
✓ DRILLING REPORT	L TUBING REPAIR		WATER DISPOSAL
Report Date: 5/31/2013	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
0/01/2010	WILDCAT WELL DETERMINATION	OTHER	OTHER:
NO ACTIVITY ON	COMPLETED OPERATIONS. Clearly show	MONTH OF MAY 2013.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 12, 2013
NAME (PLEASE PRINT) Valyn Davis	PHONE NUM 435 781-4369	BER TITLE Regulatory Affairs Analyst	
SIGNATURE N/A		DATE 6/10/2013	

BLM - Vernal Field Office - Notification Form

Operator <u>QEP</u> Rig Name/# <u>SST 54</u> Submitted By
MURRAY BECKER Phone Number 435-828-0315
Well Name/Number <u>RW 12C1-23B</u>
Qtr/Qtr <u>NE/SW</u> Section <u>23</u> Township <u>7 S</u> Range 23 E_
Lease Serial Number <u>UTU 082</u>
API Number _430-475-2330-00
Spud Notice – Spud is the initial spudding of the well, not drilling
out below a casing string.
Date/Time AM PM
Casing — Please report time casing run starts, not cementing times.
Surface Casing
Intermediate Casing
Production Casing
Liner
Other
Date/Time <u>5/19/2013</u> AM PM
BOPE BEOFINE
Initial BOPE test at surface casing point
BOPE test at intermediate casing point
30 day BOPE test Other
Date/Time <u>06/03/2013</u> <u>10:00</u> AM M PM

Remarks <u>IF NO PROBLEMS THROUGHOUT THE NIGHT WE</u> <u>SHOULD BE TESTING BOP IN THE AM AFTER SKID AND NIPPLE</u> <u>UP THANKS, MURRY BECKER, 06/02/2013</u>

CONFIDENTIAL

BLM - Vernal Field Office - Notification Form

Operator <u>QEP</u> Rig Name/# <u>SST 54</u> Submitted By
MURRAY BECKER Phone Number 435-828-0315
Well Name/Number RW 12C1-23B
Qtr/Qtr <u>NE/SW</u> Section <u>23</u> Township <u>7 S</u> Range 23 E_
Lease Serial Number <u>UTU 082</u>
API Number _430-475-2330-00
Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.
Date/Time AM PM
Casing – Please report time casing run starts, not cementing times. Surface Casing Intermediate Casing Production Casing Liner Other
Date/Time <u>5/19/2013</u> AM PM
BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test Other Control Contr
Date/Time <u>06/03/2013</u> <u>10:00</u> AM ∑ PM ☐

Remarks <u>IF NO PROBLEMS THROUGHOUT THE NIGHT WE</u> <u>SHOULD BE TESTING BOP IN THE AM AFTER SKID AND NIPPLE</u> <u>UP THANKS, MURRY BECKER, 06/02/2013</u>

BLM - Vernal Field Office - Notification Form

	rator <u>QEP</u> Rig Name/# <u>SST 54</u> Subr	
	RAY BECKER Phone Number 435-828-	-0315
	Name/Number <u>RW 12C1-23B</u> Qtr <u>NE/SW</u> Section <u>23</u> Township <u>7 S</u>	Range 23 E
	e Serial Number <u>UTU 082</u>	<u>-</u>
API	Number _43-047-52330-00	
	d Notice — Spud is the initial spudding of the we below a casing string.	ell, not drilling
	Date/Time9/5/126:00	_ AM 🔀 PM
Casi time	ng — Please report time casing run starts, not cos. Surface Casing Intermediate Casing Production Casing Liner Other	ementing
	Date/Time <u>6/11/2013</u>	M 🔀 PM 🗌
BOP	E Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test Other	RECEIVED JUN ! 0 2013 DIV. OF OIL, GAS & MINING
	Date/Time AM PM	

Remarks IF NO PROBLEMS THROUGHOUT THE DAY WE SHOULD TRIP FOR LOGS, LOG, AND READY TO START RUNNING PRODUCTION CASING AROUND 02: 00 A.M. AND CEMENTING THERE AFTER AT ABOUT 14.00 HRS ON 6/11/2013

Sundry Number: 39667 API Well Number: 43047523300000

	STATE OF UTAH			FORM 9
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU082
SUNDR	Y NOTICES AND REPORTS	ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, FOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.	y deep contal la	en existing wells below aterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: RED WASH
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: RW 12C1-23B
2. NAME OF OPERATOR: QEP ENERGY COMPANY				9. API NUMBER: 43047523300000
3. ADDRESS OF OPERATOR: 11002 East 17500 South,	Vernal, Ut, 84078 30		NE NUMBER: -3068 Ext	9. FIELD and POOL or WILDCAT: RED WASH
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1710 FSL 2156 FWL				COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 23 Township: 07.0S Range: 23.0E Mer	ridian: S	S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NA	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
	ACIDIZE		LTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	□ c	HANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	□ c	OMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ F	RACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	P	LUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	□ R	ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	□ s	IDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	□ v	ENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	□ s	I TA STATUS EXTENSION	APD EXTENSION
6/30/2013	WILDCAT WELL DETERMINATION	□ 0	THER	OTHER:
l .	COMPLETED OPERATIONS. Clearly show			Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY July 10, 2013
NAME (PLEASE PRINT)	PHONE NUM	BER	TITLE	
Valyn Davis	435 781-4369		Regulatory Affairs Analyst	
SIGNATURE N/A			DATE 7/2/2013	

RECEIVED: Jul. 02, 2013

Sundry Number: 41506 API Well Number: 43047523300000

	STATE OF UTAH		FORM 9
I			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU082
SUNDR	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING SUNDRY NOTICES AND REPORTS ON WELLS It uses this form for proposals to drill new wells, significantly deepen existing wells below it bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION PRED WAY E FOR WELL Well E OF WELL Well E OF OPERATOR: ENERGY COMPANY RESS OF OPERATOR: E SEAST 17500 South, Vernal, Ut, 84078 303 308-3068 Ext RED WAY ATION OF WELL ATION		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
current bottom-hole depth, i	reenter plugged wells, or to drill horizo		7.UNIT or CA AGREEMENT NAME: RED WASH
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: RW 12C1-23B
2. NAME OF OPERATOR: QEP ENERGY COMPANY			9. API NUMBER: 43047523300000
3. ADDRESS OF OPERATOR: 11002 East 17500 South ,	Vernal, Ut, 84078 303		9. FIELD and POOL or WILDCAT: RED WASH
4. LOCATION OF WELL FOOTAGES AT SURFACE:			I .
QTR/QTR, SECTION, TOWNSH		dian: S	
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT		FRACTURE TREAT	New construction
			PLUG BACK
SPUD REPORT Date of Spud:			☐ RECOMPLETE DIFFERENT FORMATION
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
DRILLING REPORT	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
THIS WELL COMMEN	NCED PRODUCTION ON AUC	GUST 19, 2013 @8:00 A.M	
NAME (PLEASE PRINT) Benna Muth			
SIGNATURE N/A			

(5/2000)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG 1a. TYPE OF WELL: OIL GAS WELL ORY OTHER DIFF. OTHER 7. UNIT OF CA AGREEMENT NAME RED WASH 8. WELL NAME and NUMBER: RW 12C1-23B 18. TYPE OF WORK: NEW ATS. DEEP. RE-ENTRY RESVR. OTHER 2. NAME OF OPERATOR: QEP ENERGY COMPANY 3. ADDRESS OF OPERATOR: 11002 E. 17500 S. CITY VERNAL AT SURFACE: NESW, 1710' FSL, 2156' FWL AT TOTAL DEPTH: SESW, 627' FSL, 1657' FWL 14. DATE SPUDDED: 6/9/2013 15. DATE T.D. REACHED: 16. DATE COMPLETED: 9/4/2012 16. DATE T.D. REACHED: 16. DATE COMPLETED: 9/4/2012 17. UNIT OF CA AGREEMENT NAME REPOWASH 7. UNIT OF CA AGREEMENT NAME REPOWASH 8. WELL NAME and NUMBER: RW 12C1-23B 9. API NUMBER: 4304752330 10. FIELD AND POOL, OR WILDCAT RED WASH 11. OTRIOTR, SECTION, TOWNSHIP, RA MERIDIAN: NESW 23 7S 23E 11. OTRIOTR, SECTION, TOWNSHIP, RA MERIDIAN: NESW 23 7S 23E 12. COUNTY UINTAH 14. DATE SPUDDED: 6/9/2013 15. DATE T.D. REACHED: 16. DATE COMPLETED: 9/4/2012 17. LELEVATIONS (DF, RKB, RT, GL) 5620' GL 18. TOTAL DEPTH: MD 11,022 TVD 11.022 19. PLUG BACKT.D.: MD TVD 12. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)) 23.	NGE,
DRY DRY DRY DIFF. SED WASH	E UTAH
B. TYPE OF WORK: NEW HORIZ DEEP- RE- DIFF. OTHER RW 12C1-23B	E UTAH
NeW HORIZ DEEP RETRY DIFF. OTHER RW 12C1-23B	E UTAH
QEP ENERGY COMPANY 4304752330 3. ADDRESS OF OPERATOR: 11002 E. 17500 S. 10 FIELD AND POOL, OR WILDCAT RED WASH 4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 11. QTRYOTR, SECTION, TOWNSHIP, RAMERIDIAN: NESW, 1710' FSL, 2156' FWL AT TOP PRODUCING INTERVAL REPORTED BELOW: NESW, 1710' FSL, 2156' FWL 12. COUNTY UINTAH 13. STAT 14. DATE SPUDDED: 9/4/2012 15. DATE T.D. REACHED: 6/9/2013 16. DATE COMPLETED: 8/15/2013 ABANDONED READY TO PRODUCE 17. ELEVATIONS (DF, RKB, RT, GL) 5620' GL 18. TOTAL DEPTH: MD 11,022 8/15/2013 19. PLUG BACK T.D.: MD 20. IF MULTIPLE COMPLETIONS, HOW MANY? * 21. DEPTH BRIDGE PLUG SET: TVD MD	E UTAH
11. QTR/QTR, SECTION, TOWNSHIP, RA AT SURFACE: NESW, 1710' FSL, 2156' FWL AT TOTAL DEPTH: SESW, 627' FSL, 1657' FWL 14. DATE SPUDDED: 9/4/2012 15. DATE T.D. REACHED: 8/15/2013 16. DATE COMPLETED: 8/15/2013 17. ELEVATIONS (DF, RKB, RT, GL) 5620' GL 18. TOTAL DEPTH: MD 11,022 TVD 11,022 TVD 11,022 TVD 11,022 TVD 11,022 TVD 12. COUNTY UINTAH 17. ELEVATIONS (DF, RKB, RT, GL) 5620' GL 18. TOTAL DEPTH: MD 11,022 TVD 11,022 TVD 11,022 TVD 11,022 TVD 11,022 TVD 12. COUNTY UINTAH 17. ELEVATIONS (DF, RKB, RT, GL) 5620' GL 18. TOTAL DEPTH: MD 11,022 TVD 11,022 TVD 11,022 TVD 11,022 TVD 11,022 TVD 11,022	E UTAH
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: NESW, 1710' FSL, 2156' FWL AT TOP PRODUCING INTERVAL REPORTED BELOW: NESW, 1710' FSL, 2156' FWL AT TOTAL DEPTH: SESW, 627' FSL, 1657' FWL 14. DATE SPUDDED: 9/4/2012 15. DATE T.D. REACHED: 8/15/2013 16. DATE COMPLETED: 8/15/2013 17. ELEVATIONS (DF, RKB, RT, GL) 5620' GL 18. TOTAL DEPTH: MD 11,022 TVD 11,022 19. PLUG BACK T.D.: MD TVD 11,022 TVD 11,022 TVD 11. QTR/QTR, SECTION, TOWNSHIP, RA MERIDIAN: NESW 23 7S 23E 12. COUNTY UINTAH 12. COUNTY UINTAH 13. STAT UINTAH 14. DATE SPUDDED: 6/9/2013 15. DATE T.D. REACHED: 8/15/2013 ABANDONED READY TO PRODUCE 17. ELEVATIONS (DF, RKB, RT, GL) 5620' GL 16. DATE COMPLETION, TOWNSHIP, RA MERIDIAN: NESW 23 7S 23E 17. ELEVATIONS (DF, RKB, RT, GL) 5620' GL 17. ELEVATIONS (DF, RKB, RT, GL) 5620' GL 18. TOTAL DEPTH: MD 11,022 TVD 11,022 TVD 11,022	E UTAH
AT SURFACE: NESW, 1710' FSL, 2156' FWL AT TOP PRODUCING INTERVAL REPORTED BELOW: NESW, 1710' FSL, 2156' FWL AT TOTAL DEPTH: SESW, 627' FSL, 1657' FWL 12. COUNTY UINTAH 13. STAT 14. DATE SPUDDED: 9/4/2012 15. DATE T.D. REACHED: 8/15/2013 16. DATE COMPLETED: 8/15/2013 17. ELEVATIONS (DF, RKB, RT, GL) 5620' GL 18. TOTAL DEPTH: MD 11,022 TVD 11,022 19. PLUG BACK T.D.: MD 20. IF MULTIPLE COMPLETIONS, HOW MANY? * 21. DEPTH BRIDGE PLUG SET: TVD	E UTAH
AT TOP PRODUCING INTERVAL REPORTED BELOW: NESW, 1710' FSL, 2156' FWL AT TOTAL DEPTH: SESW, 627' FSL, 1657' FWL 14. DATE SPUDDED: 9/4/2012 15. DATE T.D. REACHED: 8/15/2013 16. DATE COMPLETED: 8/15/2013 17. ELEVATIONS (DF, RKB, RT, GL) 5620' GL 18. TOTAL DEPTH: MD 11,022 TVD 11,022 19. PLUG BACK T.D.: MD 20. IF MULTIPLE COMPLETIONS, HOW MANY? * 21. DEPTH BRIDGE PLUG SET: TVD	UTAH
AT TOTAL DEPTH: SESW, 627' FSL, 1657' FWL 14. DATE SPUDDED: 9/4/2012	UTAH
14. DATE SPUDDED: 9/4/2012 15. DATE T.D. REACHED: 6/9/2013 16. DATE COMPLETED: 8/15/2013 ABANDONED READY TO PRODUCE 17. ELEVATIONS (DF, RKB, RT, GL) 18. TOTAL DEPTH: MD 11,022 19. PLUG BACK T.D.: MD 20. IF MULTIPLE COMPLETIONS, HOW MANY? * 21. DEPTH BRIDGE PLUG SET: MD TVD 11,022 TVD TVD TVD TVD	
18. TOTAL DEPTH: MD 11,022	
TVD 11,022 TVD PLUG SET:	
22. THE ELLOTHOMEORE WHO TE EGGS NOT COUNTY	
CBL WAS WELL CORED? NO 🗸 YES 🗌 (Submit analys	is)
WAS DST RUN? NO V YES (Submit report	İ
DIRECTIONAL SURVEY? NO YES (Submit copy) 24. CASING AND LINER RECORD (Report all strings set in well)	
STACE CEMENTED CEMENT TYPE & CHURDY	
HOLE SIZE SIZE/GRADE WEIGHT (#/ft.) TOP (MD) BOTTOM (MD) STAGE CEMENTER CEMENT TYPE & SLURRY VOLUME (BBL) CEMENT TOP ** AMOUNT A	JNT PULLED
12.25 7.625 L-80 26.4 0 246	
9.875 7.625 L-80 26.4 246 3,820 820 274 240	
6.75 4.5 P-1 1 11.6 0 11,010 1,00 1 366	
25. TUBING RECORD	
SIZE DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) PACKE	R SET (MD)
26. PRODUCING INTERVALS 27. PERFORATION RECORD	
FORMATION NAME TOP (MD) BOTTOM (MD) TOP (TVD) BOTTOM (TVD) INTERVAL (Top/Bot - MD) SIZE NO. HOLES PERFORATION S	STATUS
(A) MESA VERDE 10,052 10,820 10,052 10,820 .42 171 Open Squeez	ed 🗍
(B) Open Squeez	ed D
(C) Open Squeez	ed D
(D) Open Squeez	ed 🗍
28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL AMOUNT AND TYPE OF MATERIAL	
10,052 - 10,820 9,607 BBLS SLICKWATER; 216,829 LBS 30/50 SAND	
29. ENCLOSED ATTACHMENTS: 30. WELL STATU	s:
☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVEY ☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☑ OTHER: OPS SUMMARY PG	

(CONTINUED ON BACK)

31. INITIAL PRODUCTION INTERVAL A (As shown in item #26) DATE FIRST PRODUCED TEST DATE: HOURS TESTED GAS - MCF TEST PRODUCTION OIL - BBL: WATER - BBL: RATES: 870 8/23/2013 6 8/19/2013 24 230 TBG, PRESS CHOKE SIZE: CSG PRESS API GRAVITY BTU - GAS GAS/OIL RATIO 24 HR PRODUCTION OIL - BBL: GAS - MCF WATER - BBL: 18/64 1,363 RATES: 870 230 751 6 INTERVAL B (As shown in item #26) DATE FIRST PRODUCED TEST DATE: HOURS TESTED: TEST PRODUCTION OIL - BBL: GAS - MCF: WATER - BBL: CHOKE SIZE: TBG. PRESS. CSG. PRESS API GRAVITY BTU - GAS GAS/OIL RATIO 24 HR PRODUCTION OIL - BBL: GAS - MCF: WATER - BBL: RATES INTERVAL C (As shown in item #26) DATE FIRST PRODUCED: TEST DATE: HOURS TESTED: TEST PRODUCTION OIL - BBL: GAS - MCF: WATER - BBL: RATES: CHOKE SIZE: TBG. PRESS CSG. PRESS API GRAVITY BTU - GAS GAS/OIL RATIO 24 HR PRODUCTION GAS - MCF: WATER - BBL: RATES: INTERVAL D (As shown in item #26) DATE FIRST PRODUCED: TEST DATE: TEST PRODUCTION HOURS TESTED: OIL - BBL: GAS - MCF: WATER - BBL: RATES: CHOKE SIZE: TBG. PRESS CSG. PRESS. API GRAVITY BTU - GAS GAS/OIL RATIO 24 HR PRODUCTION OIL - BBL: GAS - MCF: WATER - BBL: RATES: 32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.) SOLD 33. SUMMARY OF POROUS ZONES (Include Aquifers): 34. FORMATION (Log) MARKERS: Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries Bottom Top (MD) Formation Descriptions, Contents, etc. Name (MD) **GREEN RIVER** MAHOGANY MARKER WASATCH **MESA VERDE** SEGO

35. ADDITIONAL REMARKS (Include plugging procedure)

or Thereby seemly that the foregoing and attached minimation is complete and correct as determined no	oni an avan	able feeding.
NAME (PLEASE PRINT) BENNA MUTH	TITLE	REGULATORY ASSISTANT - CONTRACT
SIGNATURE Bloma Muth	DATE	9/17/2013

This report must be submitted within 30 days of

- · completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- · reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

35. I haraby cartify that the foregoing and attached information is complete and correct as determined from all available records

**ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to:

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210 Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

RECEIVED: Sep. 17, 2013

PROD. METHOD:

FLOWS

INTERVAL STATUS:

PROD. METHOD:

INTERVAL STATUS:

PROD. METHOD:

INTERVAL STATUS:

PROD. METHOD:

INTERVAL STATUS:

Top (Measured Depth)

2,930

3,672

6,248 8,365

10,929

API Well Number: 43047523300000



Daily Activity and Cost Summary

Well Name: RW 12C1-23B

API 43-047-523	30	Surface Legal Location 023007S023E27	Field Name RED WASH		State UTAH			ell Configuration Type ertical
Ground Elevation	n (ft) Ca		Current KB to GL (ft)	KB to CF (ft)	Spud D			Final Rig Release
TIG. 3000	5,625.3	5,625.30	22.80		22.80	5/17/2013 13		6/11/2013 21:00
Job Category Drilling		Primary Job Type DRILLING		Secondary Job Type DEVELOPMEN			Objective	
Start Date		DIVILLING		Job End Date				
Section Delivers		5/17/2013						
Purpose								
Summary								3
Contractor	3		RIG COT 54		Rig Type			
SST Energy Contractor			SST 54		Rig Type			
SST Energy	Ò		SST 54		Ing Type			
DOL	Start Date				Summary			
1.0	8/7/2012	PRE-SPUD COSTS						
2.0	5/17/2013	SKID, RIG UP, DRILL 1	12 1/4 HOLE TO 246	', DRILL 9 7/8" H	HOLE, SUR'	VEYS, WIPER	TRIP TO	SURFACE
3.0	5/18/2013	WIPER TRIP FROM 2	700' TO SURFACE S	STAND BACK D	RILL COLLA	ARS, DRILL, S	HORT TE	RIP X 2
4.0	5/19/2013	WIPER TRIP WASH LA OUT FOR CASING, LA CUT CASING						O AND WALNUT, TRIP ENT, WAIT ON CEMENT,
5.0	6/2/2013	SKID,RIG UP, NIPPLE	UP, TEST BOP, PIC	K UP DIRECTIO	NAL TOOL	S		
6.0	6/3/2013	PICK UP DIR. TOOLS,	TRIP, DRILL SHOE	TRACK, DIRECT	TIONAL DR	ILL		
7.0	6/4/2013	DRILLING 6 3/4 HOLE.	. RIG SERVICE					
8.0	6/5/2013	TRIP, CHANGE MUD N	MOTOR, STRING PL	UGGED, CHAN	GE MONEL	L DC, TRIP IN	I, DRILL (3/4 HOLE
9.0	6/6/2013	DIR. DRILL 6 3/4 HOLE	E, RIG SERVICE					
10.0	6/7/2013	DIRECTIONAL DRILL	6 3/4 HOLE, RIG SE	RVICE,				
11.0	6/8/2013	TRIP, RIG SERVICE, C	CUT DRILLING LINE,	, TRIP, DIRECT	IONAL DRIL	.L		
12.0	6/9/2013	DRILL 6 3/4 HOLE, RIC	3 SERVICE.					
13.0	6/10/2013	SHORT TRIP TO 8200	, CIRCULATE,					
14.0	6/11/2013	RUN 4 1/2 CASING, CI	IRCULATE AND CEN	MENT, SET PAC	CK OFF, NIF	PPLE DOWN F	RELEASE	RIG AT 21:00
		and a second a second and a second a second and a second a second and a second and a second and						West like West

QEP Energy Company

Page 1/1

Report Printed: 8/19/2013

RECEIVED: Sep. 17, 2013

API Well Number: 43047523300000



DIRECTIONAL DRILLING SPECIALISTS

QEP Energy Services

Red Wash RW 23-23B Pad RW 12C1-23B

RW 12C1-23B

Design: RW 12C1-23B

Standard Survey Report

21 August, 2013





Survey Report



 Company:
 QEP Energy Services

 Project:
 Red Wash

 Site:
 RW 23-23B Pad

 Well:
 RW 12C1-23B

 Wellbore:
 RW 12C1-23B

 Design:
 RW 12C1-23B

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:

Well RW 12C1-23B RKB @ 5648.10usft (SST 54) RKB @ 5648.10usft (SST 54) True

Minimum Curvature
Compass DB Connection

Project Red Wash

Map System: Geo Datum:

Map Zone:

US State Plane 1983 North American Datum 1983

Utah Central Zone

System Datum:

Database:

Mean Sea Level

Using geodetic scale factor

Site RW 23-23B Pad

Site Position:
From: Map
Position Uncertainty:

Northing: Easting: Slot Radius: 7,246,686.310 usft 2,256,158.369 usft Latitude: Longitude: 40.193199 -109.295575 1.41 °

Position Uncertainty

0.00 usft

13-3/16 "

Grid Convergence:

40.192484

 Well
 RW 12C1-23B

 Well Position
 +N/-S
 0.00 usft

+E/-W 0.00 usft 0.00 usft

ft Northing:
ft Easting:
ft Wellhead Elevation:

7,246,422.798 usft 2,256,032.027 usft Elevation: 5.625.30 usft

Longitude: Ground Level:

Latitude:

-109.296050 5,625.30 usft

RW 12C1-23B Wellbore Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (°) (°) (nT) IGRF2010 4/10/2013 10.78 66.02 52,275

Design RW 12C1-23B Audit Notes: Version: 1.0 Phase: ACTUAL Tie On Depth: 0.00 Depth From (TVD) Vertical Section: +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.00 204.73 0.00 0.00

 Survey Program
 Date
 8/21/2013

 From (usft)
 To (usft)
 Survey (Wellbore)
 Tool Name
 Description

 22.80
 11,022.00 RW 12C1-23B Surveys (RW 12C1-23B)
 NN MWD
 MWD - Standard

еу									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.80	0.00	0.00	22.80	0.00	0.00	0.00	0.00	0.00	0.00
RKB									
229.00	0.40	14.10	229.00	0.70	0.18	-0.71	0.19	0.19	0.00
320.00	0.20	34.20	320.00	1.14	0.34	-1.18	0.25	-0.22	22.09
410.00	0.30	350.00	410.00	1.50	0.39	-1.52	0.23	0.11	-49.11
502.00	0.30	347.10	502.00	1.97	0.29	-1.91	0.02	0.00	-3.15
593.00	1.10	187.60	592.99	1.34	0.13	-1.27	1.52	0.88	-175.27
685.00	1.50	186.80	684.97	-0.73	-0.13	0.72	0.44	0.43	-0.87
776.00	2.70	218.90	775.91	-3.58	-1.62	3.93	1.80	1.32	35.27
868.00	4.60	216.20	867.72	-8.25	-5.16	9.65	2.07	2.07	-2.93

8/21/2013 3:11:54PM

Page 2

COMPASS 5000.1 Build 58



Survey Report



Company: Project: QEP Energy Services Red Wash

 Site:
 RW 23-23B Pad

 Well:
 RW 12C1-23B

 Wellbore:
 RW 12C1-23B

 Design:
 RW 12C1-23B

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method: Database: Well RW 12C1-23B

RKB @ 5648.10usft (SST 54) RKB @ 5648.10usft (SST 54)

True

Minimum Curvature
Compass DB Connection

1,057.00										
962.00 6.70 209.80 961.25 -16.05 -10.11 18.61 2.33 2.23 -6.8 1.057.00 7.20 209.20 1.055.56 -26.05 -15.77 30.26 0.53 0.53 -6.8 1.152.00 7.80 209.40 1.149.74 -98.87 -21.84 4.262 0.63 0.63 0.63 0.2 1.248.00 9.70 206.90 1.336.80 -61.94 -98.38 56.11 0.64 0.63 -0.9 1.343.00 9.70 206.90 1.336.80 -61.94 -98.38 56.11 0.64 0.63 -0.9 1.343.00 9.70 206.90 1.336.80 -61.94 -98.38 56.11 0.64 0.63 -0.9 1.343.00 9.70 206.90 1.356.00 -61.94 -96.53 2.7 71.04 1.39 1.37 1.66 1.39 0.00 11.70 208.50 1.452.50 -96.05 -53.00 100.67 2.11 2.11 0.1 1.39 0.00 15.70 207.30 1.618.45 -177.59 -65.00 133.99 2.11 2.08 1.6 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20	Depth			Depth			Section	Rate	Rate	Rate
1,057.00										
1,122.00 7,80 209.40 1,149,74 -9.8 87 -21,84 42,82 0.83 0.83 0.93 -0.9 1,248,00 8.40 208.50 1,244.79 -48,71 -28,28 56.11 0.54 0.83 -0.9 1,348,00 9.70 208.90 1,338,80 -61,94 -35,32 71,04 1.39 1.37 -16.6 1,349,00 11,70 208.50 1,432,93 -77,71 -43,62 88,83 2.11 2.08 1.6 1,534,00 13,70 208.60 1,525.50 -56,05 -58,00 109,67 2.11 2.11 0.1 1,630,00 15,70 207,30 1,618,45 1.17,55 -65,00 133,99 2.11 2.08 1.3 1,725,00 15,90 208,50 1,709,88 -140,67 -76,67 159,84 0.36 0.21 -1.0 1,821,00 16,20 205,70 1,802,12 -164,52 -88,30 186,37 0.36 0.21 -1.0 1,821,00 17,00 204,60 1,833,16 -189,09 -99.83 213,51 0.50 0.31 -0.0 1,933,17 -214,28 -112,57 241,72 1.51 0.63 4.8 1,201,00 17,60 209.00 1,833,87 -214,28 -112,57 241,72 1.51 0.63 4.8 1,202,00 17,80 210,70 2,155,57 -265,67 -141,28 300,40 0.82 -0.42 2.2 2,202,00 17,80 210,70 2,285,64 -289,94 -153,82 327,70 3.08 -221 -7.4 2,332,00 15,30 203,00 2,348,09 -313,26 -163,87 35,00 0.45 -0.42 2.2 2,487,00 15,30 200,00 2,349,98 -313,26 -163,87 35,00 0.45 0.85 0.63 -0.63 -0.5 2,681 0.0 13,90 207,70 2,590,94 -366,95 -183,19 400,85 1.61 0.35 0.63 0.5 2,581 0.0 13,90 207,70 2,590,94 -366,95 -183,19 400,85 1.61 0.35 0.63 0.5 2,581 0.0 13,90 207,70 2,590,94 -366,95 -183,19 400,85 1.61 0.0 13,90 207,70 2,590,94 -366,95 -183,19 400,85 1.61 0.0 13,90 207,70 2,590,94 -366,95 -183,19 400,85 1.61 0.0 13,90 207,70 2,590,94 -366,95 -183,19 400,85 1.61 0.0 13,90 207,70 2,590,94 -366,95 -183,19 400,85 1.61 0.0 13,90 207,70 2,590,94 -366,95 -183,19 400,85 1.61 0.0 13,90 207,70 2,590,94 -366,95 -183,19 400,85 1.61 0.0 13,90 207,70 2,590,94 -366,95 -183,19 400,85 1.61 0.0 13,10 1.26 0.20,20 0.0 15,30 209,70 2,590,94 -366,95 -183,19 400,85 1.61 0.0 13,10 1.26 0.0 15,30 209,70 2,590,94 -366,95 -183,19 400,85 1.61 0.0 13,10 1.26 0.0 13,10 1	962.00	6.70	209.80	961.25	-16.05	-10.11	18.81	2.33	2,23	-6.81
1,248.00 8.40 208.50 1,244.78 48.71 -28.38 56.11 0.64 0.63 -0.9 1,343.00 9.70 208.90 1,338.60 -61.94 -35.32 71.04 1.39 1.37 -1.6 1,439.00 11.70 208.50 1,432.93 -77.71 -43.62 88.83 2.11 2.08 1.6 1,534.00 13.70 208.60 1,525.60 -96.05 -58.60 108.67 2.11 2.11 0.1 1,630.00 15.70 207.30 1,618.45 -117.58 -65.00 133.89 2.11 2.08 -1.3 1,725.00 15.90 206.30 1,709.86 -1.40.67 -76.67 156.84 0.36 0.21 -1.0 1,821.00 16.20 205.70 1,802.12 -184.52 -88.30 186.37 0.38 0.31 -0.6 1,821.00 17.00 20.40 1,833.16 -189.09 -99.83 213.51 0.90 0.84 -1.1 2,011.00 17.60 209.00 1,833.87 -214.28 -112.57 241.72 1.51 0.83 4.6 2,108.00 18.20 205.50 2,074.27 -239.88 -125.51 270.85 0.65 0.63 -0.5 2,202.00 17.80 210.70 2,185.57 -265.67 -141.26 300.40 0.82 -0.42 2.2 2,297.00 15.70 203.60 2,256.84 -35.89 4 -153.82 237.70 3.88 -221 7.4 2,392.00 15.30 203.00 2,348.09 -313.28 -163.87 353.08 0.45 -0.42 2.2 2,392.00 15.30 207.70 2,530.94 -35.89 4 -153.81 9 400.85 1.81 0.85 2.2 2,581.00 13.90 207.70 2,530.94 -35.89 5 -183.19 400.85 1.81 0.85 2.2 2,787.00 14.70 202.50 2,09.03 -42.59 5 -183.19 400.85 1.81 0.85 2.2 2,787.00 14.70 202.50 2,09.03 -42.59 6 -183.19 400.85 1.81 0.85 2.2 2,787.00 14.70 202.50 2,09.03 -42.59 9 -183.19 400.85 1.81 0.83 4.85 2.2 2,787.00 15.00 207.70 2,530.94 -35.89 -418.31 9 400.85 1.81 0.85 2.2 2,787.00 15.00 207.70 2,530.94 -35.89 -418.31 9 400.85 1.81 0.85 2.2 2,787.00 15.00 207.70 2,530.94 -35.89 -418.31 9 400.85 1.81 0.85 2.2 2,787.00 15.00 207.70 2,809.03 -42.59 -22.0 8 479.19 0.92 0.74 -1.8 2,870.00 17.20 205.70 2,809.03 -42.59 -22.0 8 479.19 0.92 0.74 -1.8 2,870.00 17.20 205.70 2,809.03 -42.59 -22.0 8 479.19 0.92 0.74 -1.8 3,061.00 18.00 20.80 2.2 0.30 0.30 3.31 0.81 0.81 0.90 0.90 0.3 3,146.00 18.00 20.40 0.3 0.30 0.30 3.35 0.4 0.50 0.3 0.30 0.30 0.30 0.30 0.30 0.30	1,057.00	7.20	209.20	1,055.56	-26.05	-15.77	30.26	0,53	0.53	-0.63
1,343.00 9.70 206.90 1,338.60 -61.94 -35.32 71.04 1.39 1.37 -1.8 1.39 1.37 -1.8 1.39 1.37 -1.8 1.39 1.37 -1.8 1.39 1.37 -1.8 1.39 1.37 -1.8 1.39 1.37 -1.8 1.39 1.37 -1.8 1.39 1.37 -1.8 1.39 1.37 -1.8 1.39 1.37 -1.8 1.39 1.37 -1.8 1.39 1.37 -1.8 1.39 1.37 1.39 1.37 1.39 1.37 1.39 1.37 1.39 1.37 1.39 1.37 1.39 1.37 1.39 1.37 1.39 1.37 1.39 1.37 1.39 1.37 1.39 1.37 1.39 1.39 1.37 1.39 1.39 1.39 1.39 1.39 1.39 1.39 1.39	1,152.00	7.80	209.40	1,149.74	-36.87	-21.84	42.62	0.63	0.63	0.21
1,439.00 11.70 208.50 1,432.93 -77.71 -43.62 88.83 2.11 2.08 1.51,534.00 13.70 208.60 1,525.60 -96.05 -53.60 109.67 2.11 2.11 0.11,530.00 15.70 207.30 1,618.45 -117.59 -65.00 133.99 2.11 2.08 -13.71 1,725.00 15.90 206.30 1,709.66 -140.67 -70.67 159.44 0.36 0.21 -1.0 1,821.00 16.20 205.70 1,802.12 -164.52 -88.30 186.37 0.36 0.31 -0.6 1,821.00 16.20 205.70 1,802.12 -164.52 -88.30 186.37 0.36 0.31 -0.6 1,916.00 17.00 204.60 1,893.16 -189.09 -99.83 213.51 0.90 0.94 -1.1 2,011.00 17.60 209.00 1,983.67 -214.28 -112.57 241.72 1.51 0.63 4.6 2,166.00 18.20 208.50 20.74.27 -229.986 1.26.61 270.65 0.65 0.63 -0.5 2,202.00 17.80 210.70 2,165.57 -285.67 -141.28 300.40 0.82 -0.42 2.2 2,297.00 15.70 203.60 2,256.54 -289.94 -153.82 327.70 3.08 -2.17 2,302.00 15.30 203.00 2,348.09 -313.28 -183.87 353.08 0.45 -0.42 2.2 3,487.00 14.70 202.50 2.439.85 -355.93 -173.38 377.68 0.65 0.63 -0.5 2,581.00 13.30 207.70 2,530.94 -356.95 -183.19 400.85 1.61 -0.85 6.5 2,680.00 15.30 209.70 2,266.74 -376.83 -195.19 400.85 1.61 -0.85 6.5 2,680.00 15.30 209.70 2,530.94 -356.95 -183.19 400.85 1.61 -0.85 6.5 2,880.00 15.30 209.70 2,530.94 -356.95 -183.19 400.85 1.61 -0.85 6.5 2,880.00 15.30 209.70 2,530.94 -356.95 -183.19 400.85 1.61 -0.85 6.5 2,880.00 15.30 209.70 2,530.94 -356.95 -183.19 400.85 1.61 -0.85 6.5 2,880.00 15.30 209.70 2,530.94 -356.95 -183.19 400.85 1.61 -0.85 6.5 6.5 3,381.00 1.5 0.20 209.70 2,530.94 -356.95 -183.19 400.85 1.61 -0.85 6.5 6.5 3,381.00 1.5 0.20 209.70 2,530.94 -356.95 -183.19 400.85 1.61 -0.85 6.5 6.5 3,381.00 1.5 0.20 209.70 2,530.84 -356.95 -183.19 400.85 1.61 -0.85 6.5 6.5 6.5 1.04 0.93 1.4	1,248.00	8.40	208.50	1,244.79	-48.71	-28.38	56,11	0.64	0.63	-0.94
1,534,00 13,70 208,00 1,525,00 -96,05 -53,00 109,67 2,11 2,11 2,11 1,630,00 15,70 207,30 1,618,45 -117,58 -65,00 133,99 2,11 2,08 -1.3 1,725,00 15,90 208,30 1,708,96 -140,67 -76,67 159,84 0,36 0,21 -1.0 1,821,00 16,20 205,70 1,802,12 -164,52 -88,30 186,37 0,38 0,31 -0.6 1,821,00 17,00 204,60 1,893,16 -189,09 -99,83 213,51 0,90 0,84 -1.1 2,106,00 17,60 209,00 1,893,87 -214,28 -112,57 241,72 1,51 0,83 4,8 2,106,00 18,20 209,50 2,074,27 -299,88 -126,61 270,85 0,85 0,83 -0.5 2,202,00 17,80 210,70 2,165,57 -265,67 -141,26 300,40 0,92 -0.42 2,2 2,297,00 15,70 203,60 2,256,54 -288,94 -153,82 327,70 3,08 -221 -74,4 2,4 2,4 2,4 2,4 2,4 3,4 2,4 4,5 4,5 4,5 4,5 4,5 4,5 4,5 4,5 4,5 4	1,343.00	9.70	206.90	1,338.60	-61.94	-35.32	71.04	1.39	1.37	-1.68
1,630,00	1,439.00	11.70	208.50	1,432.93	-77.71	-43.62	88.83	2.11	2.08	1.67
1,725,00	1,534.00	13.70	208.60	1,525.60	-96.05	-53.60	109.67	2.11	2.11	0.11
1,821.00 16.20 205.70 1,802.12 -164.52 -88.30 166.37 0.36 0.31 -0.66 1,916.00 17.00 204.60 1,893.16 -189.09 -99.83 213.51 0.90 0.84 -1.1 2,011.00 17.60 209.00 1,983.87 -214.28 -112.57 241.72 1.51 0.63 4.6 2,106.00 18.20 208.50 2,074.27 -239.88 -126.81 270.85 0.65 0.65 0.63 -0.6 2,202.00 17.80 210.70 2,165.57 -265.67 -141.28 300.40 0.82 -0.42 2.2 2,297.00 15.70 203.60 2,255.54 -289.94 -153.82 327.70 3.08 -2.21 -7.4 2,392.00 15.30 203.00 2,349.09 -313.26 -163.87 353.08 0.45 -0.42 -0.6 2,487.00 14.70 202.50 2,499.85 -335.93 -173.38 377.68 0.65 0.63 -0.5 2,581.00 13.90 207.70 2,530.94 -356.95 -183.19 400.85 1.61 -0.85 5.6 2,680.00 15.30 209.70 2,626.74 -378.83 -195.19 425.74 1.50 1.41 2.0 2,775.00 16.50 208.50 2,718.11 -401.57 -207.84 451.69 1.31 1.26 -1.2 2,870.00 17.20 208.70 2,809.03 -425.88 -220.58 479.19 0.92 0.74 -1.8 2,996.00 17.10 205.20 2,900.76 -451.43 -232.97 507.49 0.47 -0.10 -1.6 3,061.00 18.20 204.80 2,991.29 -477.53 -245.14 536.29 1.16 1.16 -0.4 3,156.00 19.08 206.20 3,081.30 -504.93 -258.22 568.65 1.04 0.93 3,443.00 15.90 210.00 206.40 3,171.49 -534.42 -272.80 599.53 2.00 2.00 0.2 3,347.00 20.30 207.30 3,260.38 -564.31 -267.93 633.01 0.81 -0.74 -4.58 3,773.00 15.50 210.60 3,351.61 -590.44 -302.26 662.74 4.70 4.58 3.4 3,557.00 16.50 210.60 3,342.08 -612.41 -315.25 688.65 1.04 0.93 1.4 4,039.00 16.80 204.20 3,686.93 -686.95 -338.41 738.27 1.00 0.42 -3.6 3,773.00 15.50 210.60 3,351.61 -590.44 -302.26 682.74 4.70 4.58 3.4 3,557.00 15.60 210.60 3,351.61 -590.44 -302.26 682.74 4.70 4.58 3.4 3,557.00 15.60 210.60 3,351.61 -590.44 -302.26 682.74 4.70 4.58 3.4 4,039.00 16.80 206.20 3,068.30 -686.94 -342.80 771.29 1.10 0.92 2.02 0.02 0.02 0.02 0.02 0.02 0.0	1,630.00	15.70	207.30	1,618.45	-117.58	-65.00	133.99	2.11	2.08	-1.35
1,916.00 17.00 204.60 1,893.16 -199.09 -99.83 213.51 0.90 0.84 -1.1 2,011.00 17.60 209.00 1,933.87 -214.28 -112.57 241.72 1.51 0.63 4.6 2,106.00 18.20 208.50 2,074.27 -239.88 -128.61 270.85 0.85 0.83 -0.5 2,202.00 17.80 210.70 2,165.57 -265.67 -141.26 300.40 0.82 -0.42 2.2 2,297.00 15.70 203.60 2,256.54 -289.94 -153.82 327.70 3.08 -2.21 -7.4 2,392.00 15.30 203.00 2,348.09 -313.26 -163.87 353.08 0.45 -0.42 -0.6 2,487.00 14.70 202.50 2,499.85 -335.93 -173.38 377.68 0.65 -0.63 -0.5 2,581.00 13.90 207.70 2,530.94 -356.95 -133.19 400.85 1.61 -0.85 5.5 2,680.00 15.30 209.70 2,626.74 -378.83 -195.19 425.74 1.50 1.41 2.0 2,775.00 16.50 208.50 2,718.11 -401.57 -207.84 451.69 1.31 1.26 -1.2 2,870.00 17.20 206.70 2,809.03 -425.98 -220.58 479.19 0.92 0.74 -1.8 2,986.00 17.10 205.20 2,909.07 -451.43 -232.97 507.49 0.47 -0.10 -1.5 3,061.00 18.20 204.80 2,991.29 -477.53 -245.14 6536.29 1.16 1.16 40.3 3,156.00 19.08 206.20 3,081.30 -504.93 -258.22 568.65 1.04 0.93 1.4 3,156.00 19.08 206.20 3,081.30 -504.93 -258.22 568.65 1.04 0.93 1.4 3,435.00 15.90 210.60 3,341.01 -590.44 -302.26 662.74 4.70 -4.58 3.4 3,433.00 15.90 210.60 3,341.01 -590.44 -302.26 662.74 4.70 -4.58 3.4 3,537.00 15.60 210.60 3,442.08 -912.41 -315.25 688.13 0.32 -0.32 0.0 3,728.00 16.01 20.60 3,442.08 -912.41 -315.25 688.13 0.32 -0.32 0.0 3,728.00 15.00 270.50 3,534.68 -594.54 -327.56 713.38 1.06 -0.63 -32.3 3,728.00 15.00 270.50 3,534.68 -594.54 -327.56 713.38 1.06 -0.63 -32.3 3,728.00 15.00 270.50 3,534.68 -594.54 -327.56 713.38 1.06 -0.63 -32.3 3,728.00 15.00 270.50 3,534.68 -594.54 -327.56 713.38 1.06 -0.63 -32.3 3,728.00 15.00 270.50 3,534.68 -594.54 -327.56 713.38 1.06 -0.63 -32.3 3,728.00 15.00 270.50 3,534.68 -594.54 -327.56 713.38 1.06 -0.63 -32.3 3,728.00 15.00 270.50 3,534.68 -594.54 -327.56 713.38 1.06 -0.63 -32.3 3,728.00 15.00 270.50 3,534.68 -594.54 -327.56 713.38 1.06 -0.63 -32.3 3,728.00 15.00 270.50 3,534.68 -594.54 -327.56 713.38 1.06 -0.63 -32.3 3,728.00 15.00 270.50 3,534.68 -594.54 -327.50 710.14 1.81 1.43 -44.4 4,039.00 16.88 206.23 4,269	1,725.00	15.90	206,30	1,709.86	-140.67	-76.67	159.84	0.36	0.21	-1.05
2,011.00	1,821.00	16.20	205.70	1,802.12	-164.52	-88.30	186.37	0.36	0.31	-0.63
2,106.00 18.20 208.50 2,074.27 -239.88 -126.61 270.85 0.65 0.63 -0.5 2,202.00 17.80 210.70 2,165.57 -265.67 -141.26 300.40 0.82 -0.42 2.2 2,297.00 15.70 203.60 2,256.54 -289.94 -153.82 327.70 3.08 -2.21 -7.4 2,392.00 15.30 203.00 2,348.09 -313.26 -163.87 353.08 0.45 -0.42 -0.6 2,487.00 14.70 202.50 2,439.85 -335.93 -173.38 377.66 0.65 -0.63 -0.5 2,580.00 15.30 209.70 2,530.94 -356.95 -183.19 400.85 1.61 -0.85 5.5 2,680.00 15.30 209.70 2,5626.74 -376.83 -195.19 425.74 1.50 1.41 2.6 2,870.00 17.20 206.70 2,809.03 -425.98 -220.58 479.19 0.92 0.74 <	1,916.00	17.00	204.60	1,893.16	-189.09	-99.83	213.51	0.90	0.84	-1.16
2,202.00	2,011.00	17.60	209.00	1,983.87	-214.28	-112.57	241.72	1.51	0.63	4.63
2,297.00 15.70 203.60 2,256.54 -289.94 -153.82 327.70 3.08 -2.21 -7.44 2,392.00 15.30 203.00 2,348.09 -313.26 -163.87 353.08 0.45 -0.42 -0.62 2,487.00 14.70 202.50 2,439.85 -335.93 -173.38 377.66 0.65 -0.63 -0.52 2,581.00 13.90 207.70 2,626.74 -378.83 -195.19 425.74 1.50 1.41 2.0 2,680.00 15.30 209.70 2,626.74 -378.83 -195.19 425.74 1.50 1.41 2.0 2,775.00 16.50 208.50 2,718.11 -401.57 -207.84 451.69 1.31 1.26 -1.2 2,870.00 17.20 206.70 2,809.03 -425.98 -220.58 479.19 0.92 0.74 -1.8 2,966.00 17.10 205.20 2,900.76 -451.43 -232.97 507.49 0.47 -0.10	2,106.00	18.20	208.50	2,074.27	-239.88	-126.61	270.85	0.65	0.63	-0.53
2,392.00	2,202.00	17.80	210.70	2,165.57	-265.67	-141.26	300.40	0.82	-0.42	2.29
2,487.00 14.70 202.50 2,439.85 -335.93 -173.38 377.66 0.65 -0.63 -0.5 2,581.00 13.90 207.70 2,530.94 -356.95 -183.19 400.85 1.61 -0.85 5.5 2,680.00 15.30 209.70 2,626.74 -378.83 -195.19 425.74 1.50 1.41 2.0 2,775.00 16.50 208.50 2,718.11 -401.57 -207.84 451.69 1.31 1.26 -1.2 2,870.00 17.20 206.70 2,809.03 -425.98 -220.58 479.19 0.92 0.74 -1.8 2,966.00 17.10 205.20 2,900.76 -451.43 -232.97 507.49 0.47 -0.10 -1.6 3,061.00 18.20 204.80 2,991.29 -477.53 -245.14 536.29 1.16 1.16 -0.4 3,156.00 19.08 206.20 3,081.30 -504.93 -258.22 566.65 1.04 0.93 <td< td=""><td>2,297.00</td><td>15.70</td><td>203.60</td><td>2,256.54</td><td>-289.94</td><td>-153.82</td><td>327.70</td><td>3.08</td><td>-2.21</td><td>-7.47</td></td<>	2,297.00	15.70	203.60	2,256.54	-289.94	-153.82	327.70	3.08	-2.21	-7.47
2,581.00	2,392.00	15.30	203.00	2,348.09	-313.26	-163.87	353.08	0.45	-0.42	-0.63
2,680.00	2,487.00	14.70	202.50	2,439.85	-335.93	-173.38	377.66	0.65	-0.63	-0.53
2,775.00 16,50 208.50 2,718.11 -401.57 -207.84 451.69 1.31 1.26 -1.2 2,870.00 17.20 206.70 2,809.03 -425.98 -220.58 479.19 0.92 0.74 -1.8 2,966.00 17.10 205.20 2,900.76 -451.43 -232.97 507.49 0.47 -0.10 -1.5 3,061.00 18.20 204.80 2,991.29 -477.53 -245.14 536.29 1.16 1.16 -0.4 3,156.00 19.08 206.20 3,081.30 -504.93 -258.22 566.65 1.04 0.93 1.4 3,252.00 21.00 206.40 3,171.49 -534.42 -272.80 599.53 2.00 2.00 0.2 3,347.00 2.03 207.30 3,260.38 -564.31 -287.93 633.01 0.81 -0.74 0.9 3,443.00 15.90 210.60 3,542.08 -612.41 -315.25 688.13 0.32 0.0 <	2,581.00	13.90	207.70	2,530.94	-356.95	-183.19	400.85	1.61	-0.85	5.53
2,870.00	2,680.00	15.30	209.70	2,626.74	-378.83	-195.19	425.74	1.50	1.41	2.02
2,966.00 17.10 205.20 2,900.76 -451.43 -232.97 507.49 0.47 -0.10 -1.5 3,081.00 18.20 204.80 2,991.29 -477.53 -245.14 536.29 1.16 1.16 -0.4 3,156.00 19.08 206.20 3,081.30 -504.93 -258.22 566.65 1.04 0.93 1.4 3,252.00 21.00 206.40 3,171.49 -534.42 -272.80 599.53 2.00 2.00 0.2 3,347.00 20.30 207.30 3,260.38 -564.31 -287.93 633.01 0.81 -0.74 0.5 3,443.00 15.90 210.60 3,516.11 -590.44 -302.26 662.74 4.70 -4.58 3.4 3,537.00 15.60 210.60 3,542.88 -634.54 -327.56 713.38 1.06 -0.63 -32 3,728.00 15.40 204.20 3,669.73 -667.88 -343.32 750.26 0.22 0.22 0	2,775.00	16.50	208.50	2,718.11	-401.57	-207.84	451.69	1.31	1.26	-1.26
3,061.00 18.20 204.80 2,991.29 -477.53 -245.14 536.29 1.16 1.16 -0.4 3,156.00 19.08 206.20 3,081.30 -504.93 -258.22 566.65 1.04 0.93 1.4 3,252.00 21.00 206.40 3,171.49 -534.42 -272.80 599.53 2.00 2.00 0.2 3,347.00 20.30 207.30 3,260.38 -564.31 -287.93 633.01 0.81 -0.74 0.9 3,443.00 15.90 210.60 3,351.61 -590.44 -302.26 662.74 4.70 -4.58 3.4 3,537.00 15.60 210.60 3,442.08 -612.41 -315.25 688.13 0.32 -0.32 0.0 3,633.00 15.00 207.50 3,534.68 -634.54 -327.56 713.38 1.06 -0.63 -3.2 3,7728.00 15.40 204.20 3,669.73 -667.88 -343.32 750.26 0.22 0.22 0.2 3,850.00 16.21 205.89 3,743.80 -686.94 <t< td=""><td>2,870.00</td><td>17.20</td><td>206.70</td><td>2,809.03</td><td>-425.98</td><td>-220.58</td><td>479.19</td><td>0.92</td><td>0.74</td><td>-1.89</td></t<>	2,870.00	17.20	206.70	2,809.03	-425.98	-220.58	479.19	0.92	0.74	-1.89
3,156.00 19.08 206.20 3,081.30 -504.93 -258.22 566.65 1.04 0.93 1.4 3,252.00 21.00 206.40 3,171.49 -534.42 -272.80 599.53 2.00 2.00 0.2 3,347.00 20.30 207.30 3,260.38 -564.31 -287.93 633.01 0.81 -0.74 0.9 3,443.00 15.90 210.60 3,351.61 -590.44 -302.26 662.74 4.70 -4.58 3.4 3,537.00 15.60 210.60 3,442.08 -612.41 -315.25 688.13 0.32 -0.32 0.0 3,633.00 15.00 207.50 3,534.68 -634.54 -327.56 713.38 1.06 -0.63 -3.2 3,728.00 15.40 204.20 3,626.36 -656.95 -338.41 738.27 1.00 0.42 -3.4 3,773.00 15.50 204.20 3,669.73 -667.88 -343.32 750.26 0.22 0.22 0.2 3,850.00 16.21 205.89 3,743.80 -686.94 -352.23 771.29 1.10 0.92 2.1 3,945.00 14.85 201.94 3,835.34 -710.16 -362.57 796.71 1.81 -1.43 -4.1 4,039.00 16.08 206.24 3,925.93 -733.01 -372.83 821.76 1.79 1.31 4.5 4,134.00 16.83 206.51 4,017.04 -757.12 -384.78 848.65 0.79 0.79 0.79 4,228.00 16.17 204.23 4,107.17 -781.23 -396.23 875.35 0.98 -0.70 -2.4 4,322.00 16.13 202.38 4,197.46 -805.24 -406.57 901.48 0.55 -0.04 -1.5 4,416.00 15.38 198.25 4,287.93 -829.16 -415.45 926.91 1.43 -0.80 -4.3 4,699.00 11.73 205.63 4,563.91 -887.43 -437.19 988.94 2.25 0.88 10.5	2,966.00	17.10	205.20	2,900.76	-451.43	-232.97	507.49	0.47	-0.10	-1.56
3,252.00 21.00 206.40 3,171.49 -534.42 -272.80 599.53 2.00 2.00 0.2 3,347.00 20.30 207.30 3,260.38 -564.31 -287.93 633.01 0.81 -0.74 0.9 3,443.00 15.90 210.60 3,351.61 -590.44 -302.26 662.74 4.70 -4.58 3.4 3,537.00 15.60 210.60 3,442.08 -612.41 -315.25 688.13 0.32 -0.32 0.0 3,633.00 15.00 207.50 3,534.68 -634.54 -327.56 713.38 1.06 -0.63 -3.2 3,728.00 15.40 204.20 3,669.73 -667.88 -343.32 750.26 0.22 0.22 0.2 3,773.00 15.50 204.20 3,669.73 -667.88 -343.32 750.26 0.22 0.22 0.2 3,850.00 16.21 205.89 3,743.80 -686.94 -352.23 771.29 1.10 0.92 2.	3,061.00	18.20	204.80	2,991.29	-477.53	-245.14	536.29	1.16	1.16	-0.42
3,347.00 20.30 207.30 3,260.38 -564.31 -287.93 633.01 0.81 -0.74 0.9 3,443.00 15.90 210.60 3,351.61 -590.44 -302.26 662.74 4.70 -4.58 3.4 3,537.00 15.60 210.60 3,442.08 -612.41 -315.25 688.13 0.32 -0.32 0.0 3,633.00 15.00 207.50 3,534.68 -634.54 -327.56 713.38 1.06 -0.63 -3.2 3,728.00 15.40 204.20 3,626.36 -856.95 -338.41 738.27 1.00 0.42 -3.4 3,773.00 15.50 204.20 3,669.73 -667.88 -343.32 750.26 0.22 0.22 0.0 3,850.00 16.21 205.89 3,743.80 -686.94 -352.23 771.29 1.10 0.92 2.1 3,945.00 14.85 201.94 3,835.34 -710.16 -362.57 796.71 1.81 -1.43 -4.1 4,039.00 16.08 206.24 3,925.93 -733.01 -372.83 821.76 1.79 1.31 4.5 4,134.00 16.83 206.51 4,017.04 -757.12 -384.78 848.65 0.79 0.79 0.2 4,228.00 16.17 204.23 4,107.17 -781.23 -396.23 875.35 0.98 -0.70 -2.4 4,322.00 16.13 202.38 4,197.46 -805.24 -406.57 901.48 0.55 -0.04 -1.9 4,416.00 15.38 198.25 4,287.93 -829.16 -415.45 926.91 1.43 -0.80 -4.5 4,605.00 10.90 195.70 4,471.73 -870.26 -430.65 970.61 3.44 -2.99 -8.6	3,156.00	19.08	206.20	3,081.30	-504.93	-258.22	566.65			1.47
3,443,00 15,90 210,60 3,351,61 -590,44 -302,26 662,74 4.70 -4,58 3.44 3,537,00 15,60 210,60 3,442,08 -612,41 -315,25 688,13 0.32 -0.32 0.0 3,633,00 15,00 207,50 3,534,68 -634,54 -327,56 713,38 1.06 -0.63 -3.2 3,728,00 15,40 204,20 3,626,36 -656,95 -338,41 738,27 1.00 0.42 -3.4 3,773,00 15,50 204,20 3,669,73 -667,88 -343,32 750,26 0.22 0.22 0.2 0.2 3,850,00 16,21 205,89 3,743,80 -686,94 -352,23 771,29 1.10 0.92 2.1 3,945,00 14,85 201,94 3,835,34 -710,16 -362,57 796,71 1.81 -1,43 -4,1 4,039,00 16,08 206,24 3,925,93 -733,01 -372,83 821,76 1.79 1.31 4,5 4,134,00 16,83 206,51 4,017,04 -	3,252.00	21.00	206.40	3,171.49	-534.42	-272.80	599.53	2.00	2.00	0.21
3,537.00 15.60 210.60 3,442.08 -612.41 -315.25 688.13 0.32 -0.32 0.0 3,633.00 15.00 207.50 3,534.68 -634.54 -327.56 713.38 1.06 -0.63 -3.2 3,728.00 15.40 204.20 3,626.36 -656.95 -338.41 738.27 1.00 0.42 -3.4 3,773.00 15.50 204.20 3,669.73 -667.88 -343.32 750.26 0.22 0.22 0.0 3,850.00 16.21 205.89 3,743.80 -686.94 -352.23 771.29 1.10 0.92 2.1 3,945.00 14.85 201.94 3,835.34 -710.16 -362.57 796.71 1.81 -1.43 -4.1 4,039.00 16.08 206.24 3,925.93 -733.01 -372.83 821.76 1.79 1.31 4.5 4,134.00 16.83 206.51 4,017.04 -757.12 -384.78 848.65 0.79 0.79 0.2 4,228.00 16.13 202.23 4,107.17 -781.23 <td< td=""><td>3,347.00</td><td>20.30</td><td>207.30</td><td>3,260.38</td><td>-564.31</td><td>-287.93</td><td>633.01</td><td>0.81</td><td>-0.74</td><td>0.95</td></td<>	3,347.00	20.30	207.30	3,260.38	-564.31	-287.93	633.01	0.81	-0.74	0.95
3,633.00 15.00 207.50 3,534.68 -634.54 -327.56 713.38 1.06 -0.63 -3.2 3,728.00 15.40 204.20 3,626.36 -656.95 -338.41 738.27 1.00 0.42 -3.4 3,773.00 15.50 204.20 3,669.73 -667.88 -343.32 750.26 0.22 0.22 0.02 3,850.00 16.21 205.89 3,743.80 -686.94 -352.23 771.29 1.10 0.92 2.1 3,945.00 14.85 201.94 3,835.34 -710.16 -362.57 796.71 1.81 -1.43 -4.1 4,039.00 16.08 206.24 3,925.93 -733.01 -372.83 821.76 1.79 1.31 4.5 4,134.00 16.83 206.51 4,017.04 -757.12 -384.78 848.65 0.79 0.79 0.2 4,228.00 16.17 204.23 4,107.17 -781.23 -396.23 875.35 0.98 -0.70 -2.4 4,322.00 16.13 202.38 4,197.46 -805.24 <	3,443.00	15.90	210.60	3,351.61	-590.44	-302.26	662.74	4.70	-4.58	3.44
3,728.00 15.40 204.20 3,626.36 -656.95 -338.41 738.27 1.00 0.42 -3.4 3,773.00 15.50 204.20 3,669.73 -667.88 -343.32 750.26 0.22 0.22 0.0 3,850.00 16.21 205.89 3,743.80 -686.94 -352.23 771.29 1.10 0.92 2.1 3,945.00 14.85 201.94 3,835.34 -710.16 -362.57 796.71 1.81 -1.43 -4.1 4,039.00 16.08 206.24 3,925.93 -733.01 -372.83 821.76 1.79 1.31 4.5 4,134.00 16.83 206.51 4,017.04 -757.12 -384.78 848.65 0.79 0.79 0.2 4,228.00 16.17 204.23 4,107.17 -781.23 -396.23 875.35 0.98 -0.70 -2.4 4,322.00 16.13 202.38 4,197.46 -805.24 -406.57 901.48 0.55 -0.04 -1.5 4,416.00 15.38 198.25 4,287.93 -829.16 <t< td=""><td>3,537.00</td><td>15.60</td><td>210.60</td><td>3,442.08</td><td>-612.41</td><td>-315.25</td><td>688.13</td><td>0.32</td><td>-0.32</td><td>0.00</td></t<>	3,537.00	15.60	210.60	3,442.08	-612.41	-315.25	688.13	0.32	-0.32	0.00
3,773.00 15.50 204.20 3,669.73 -667.88 -343.32 750.26 0.22 0.22 0.02 3,850.00 16.21 205.89 3,743.80 -686.94 -352.23 771.29 1.10 0.92 2.1 3,945.00 14.85 201.94 3,835.34 -710.16 -362.57 796.71 1.81 -1.43 -4.1 4,039.00 16.08 206.24 3,925.93 -733.01 -372.83 821.76 1.79 1.31 4.5 4,134.00 16.83 206.51 4,017.04 -757.12 -384.78 848.65 0.79 0.79 0.2 4,228.00 16.17 204.23 4,107.17 -781.23 -396.23 875.35 0.98 -0.70 -2.4 4,322.00 16.13 202.38 4,197.46 -805.24 -406.57 901.48 0.55 -0.04 -1.8 4,416.00 15.38 198.25 4,287.93 -829.16 -415.45 926.91 1.43 -0.80 -4.3 4,511.00 13.71 203.26 4,379.89 -851.46	3,633.00	15.00	207.50	3,534.68	-634.54	-327.56		1.06	-0.63	-3.23
3,850.00 16.21 205.89 3,743.80 -686.94 -352.23 771.29 1.10 0.92 2.1 3,945.00 14.85 201.94 3,835.34 -710.16 -362.57 796.71 1.81 -1.43 -4.1 4,039.00 16.08 206.24 3,925.93 -733.01 -372.83 821.76 1.79 1.31 4.5 4,134.00 16.83 206.51 4,017.04 -757.12 -384.78 848.65 0.79 0.79 0.2 4,228.00 16.17 204.23 4,107.17 -781.23 -396.23 875.35 0.98 -0.70 -2.4 4,322.00 16.13 202.38 4,197.46 -805.24 -406.57 901.48 0.55 -0.04 -1.5 4,416.00 15.38 198.25 4,287.93 -829.16 -415.45 926.91 1.43 -0.80 -4.3 4,511.00 13.71 203.26 4,379.89 -851.46 -423.84 950.69 2.20 -1.76 5.2 4,605.00 10.90 195.70 4,471.73 -870.26	3,728.00	15.40	204.20	3,626.36	-656.95	-338.41	738.27	1.00	0.42	-3.47
3,945.00 14.85 201.94 3,835.34 -710.16 -362.57 796.71 1.81 -1.43 -4.1 4,039.00 16.08 206.24 3,925.93 -733.01 -372.83 821.76 1.79 1.31 4.5 4,134.00 16.83 206.51 4,017.04 -757.12 -384.78 848.65 0.79 0.79 0.2 4,228.00 16.17 204.23 4,107.17 -781.23 -396.23 875.35 0.98 -0.70 -2.4 4,322.00 16.13 202.38 4,197.46 -805.24 -406.57 901.48 0.55 -0.04 -1.5 4,416.00 15.38 198.25 4,287.93 -829.16 -415.45 926.91 1.43 -0.80 -4.3 4,511.00 13.71 203.26 4,379.89 -851.46 -423.84 950.69 2.20 -1.76 5.2 4,605.00 10.90 195.70 4,471.73 -870.26 -430.65 970.61 3.44 -2.99 -8.0 4,699.00 11.73 205.63 4,563.91 -887.43		15.50		3,669.73	-667.88					0.00
4,039.00 16.08 206.24 3,925.93 -733.01 -372.83 821.76 1.79 1.31 4.5 4,134.00 16.83 206.51 4,017.04 -757.12 -384.78 848.65 0.79 0.79 0.2 4,228.00 16.17 204.23 4,107.17 -781.23 -396.23 875.35 0.98 -0.70 -2.4 4,322.00 16.13 202.38 4,197.46 -805.24 -406.57 901.48 0.55 -0.04 -1.5 4,416.00 15.38 198.25 4,287.93 -829.16 -415.45 926.91 1.43 -0.80 -4.3 4,511.00 13.71 203.26 4,379.89 -851.46 -423.84 950.69 2.20 -1.76 5.2 4,605.00 10.90 195.70 4,471.73 -870.26 -430.65 970.61 3.44 -2.99 -8.0 4,699.00 11.73 205.63 4,563.91 -887.43 -437.19 988.94 2.25 0.88 10.5	2014/06/2010/05/05									2.19
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4,416.00 15.38 198.25 4,287.93 -829.16 -415.45 926.91 1.43 -0.80 -4.3 4,511.00 13.71 203.26 4,379.89 -851.46 -423.84 950.69 2.20 -1.76 5.2 4,605.00 10.90 195.70 4,471.73 -870.26 -430.65 970.61 3.44 -2.99 -8.0 4,699.00 11.73 205.63 4,563.91 -887.43 -437.19 988.94 2.25 0.88 10.5	4,228.00	16.17		4,107.17		-396.23		0.98		-2.43
4,511.00 13.71 203.26 4,379.89 -851.46 -423.84 950.69 2.20 -1.76 5.2 4,605.00 10.90 195.70 4,471.73 -870.26 -430.65 970.61 3.44 -2.99 -8.0 4,699.00 11.73 205.63 4,563.91 -887.43 -437.19 988.94 2.25 0.88 10.5	12									-1.97
4,605.00 10.90 195.70 4,471.73 -870.26 -430.65 970.61 3.44 -2.99 -8.0 4,699.00 11.73 205.63 4,563.91 -887.43 -437.19 988.94 2.25 0.88 10.6	A144 CO. (1224 CO. (1224 CO.)									-4.39
4,699.00 11.73 205.63 4,563.91 -887.43 -437.19 988.94 2.25 0.88 10.5										5.27
	4,605.00	10.90	195.70	4,471.73	-870.26	-430.65	970.61	3.44	-2.99	-8.04
4 794 00 8 92 195 26 4 .657 .37 -903 .25 -443 30 1 005 86 3 54 -2 96 -103	4,699.00	11.73	205.63	4,563.91	-887.43	-437.19	988.94	2.25	0.88	10.56
11. 2.1. 2.1. 1.2. 1.2. 1.2. 1.2. 1.2.	4,794.00	8.92	195.26	4,657.37	-903.25	-443.30	1,005.86	3.54	-2.96	-10.92

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Page 3

COMPASS 5000.1 Build 58



Survey Report



Company: Project: Site: Well:

Wellbore:

Design:

QEP Energy Services

Red Wash RW 23-23B Pad RW 12C1-23B RW 12C1-23B

RW 12C1-23B

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Database:

Well RW 12C1-23B

RKB @ 5648.10usft (SST 54) RKB @ 5648.10usft (SST 54)

True

Minimum Curvature Compass DB Connection

n: Kvi				Database:			Compass DB C		
Measured Depth (usft)	Inclination (°)	Azimuth	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,983.00	11.20	210.11	4,843.20	-934.79	-456.81	1,040.17	1.50	0.27	7.67
5,077.00	9.54	203.61	4,935.66	-949.83	-464.51	1,057.04	2.16	-1.77	-6.91
5,171.00	9.27	209.50	5,028.40	-963.56	-471.36	1,072.38	1.06	-0.29	6.27
5,266.00	7.77	203.60	5,122.35	-976.10	-477.69	1,086.42	1.83	-1.58	-6.21
5,360.00	7.16	204.50	5,215.55	-987.26	-482.67	1,098.64	0.66	-0.65	0.96
5,453.00	6.19	197.60	5,307.92	-997.31	-486.59	1,109.41	1.35	-1.04	-7.42
5,549.00	6.37	199.48	5,403.35	-1,007.26	-489.93	1,119.85	0.28	0.19	1.96
5,643.00	5.98	217.94	5,496.81	-1,016.04	-494.68	1,129.81	2.14	-0.41	19.64
5,737.00	5.36	212.66	5,590.35	-1,023.60	-500.06	1,138.92	0.86	-0.66	-5.62
5,831.00	5.09	210.20	5,683.96	-1,030.90	-504.53	1,147.42	0.37	-0.29	-2.62
5,925.00	4.70	207.65	5,777.62	-1,037.92	-508,41	1,155.42	0.48	-0.41	-2.71
6,019.00	4.61	208.80	5,871.31	-1,044.64	-512.02	1,163.03	0.14	-0.10	1.22
6,114.00	4.04	200.98	5,966.04	-1,051.11	-515.05	1,170.18	0.86	-0.60	-8.23
6,208.00	3.82	199.04	6,059.82	-1,057.16	-517.26	1,176.60	0.27	-0.23	-2.06
6,303.00	5.30	201.10	6,154.51	-1,064.25	-519.87	1,184.13	1.57	1.56	2.17
6,397.00	3.70	185.20	6,248.22	-1,071.32	-521.71	1,191.32	2.14	-1.70	-16.91
6,491.00	1.70	193.70	6,342.11	-1,075.69	-522.32	1,195.55	2.16	-2.13	9.04
6,586.00	0.21	230,68	6,437.10	-1,077.17	-522.79	1,197.09	1.62	-1.57	38.93
6,681.00	0.80	175.30	6,532.10	-1,077.94	-522.87	1,197.82	0.74	0.62	-58.29
6,775.00	0.13	14.03	6,626.09	-1,078.49	-522.79	1,198.29	0.98	-0.71	-171.56
6,869.00	0.20	135.90	6,720.09	-1,078.51	-522.65	1,198.24	0.31	0.07	129.65
6,964.00	0.17	6.03	6,815.09	-1,078.49	-522.52	1,198.17	0.35	-0.03	-136.71
7,058.00	1.31	334.66	6,909.08	-1,077.38	-522.96	1,197.35	1.24	1.21	-33.37
7,153.00	0.70	16.75	7,004.07	-1,075.84	-523.26	1,196.08	0.97	-0.64	44.31
7,247.00	1.20	328.80	7,098.06	-1,074.45	-523.60	1,194.96	0.95	0.53	-51.01
7,341.00	1.10	307.40	7,192.04	-1,073.06	-524.83	1,194.21	0.47	-0.11	-22.77
7,436.00	2.00	311.00	7,287.00	-1,071.42	-526.81	1,193.54	0.95	0.95	3.79
7,530.00	1.40	311.40	7,380.96	-1,069.58	-528.90	1,192.75	0.64	-0.64	0.43
7,624.00	1.80	332.40	7,474.93	-1,067.51	-530.45	1,191.52	0.75	0.43	22.34
7,719.00	0.40	341.30	7,569.91	-1,065.88	-531.25	1,190.37	1.48	-1.47	9.37
7,813.00	0.61	338.70	7,663.90	-1,065.10	-531.53	1,189.78	0.22	0.22	-2.77
7,907.00	1.53	56.83	7,757.89	-1,063.95	-530.67	1,188.37	1.62	0.98	83.12
8,002.00	1.50	113.60	7,852.86	-1,063.75	-528.46	1,187.27	1.52	-0.03	59.76
8,096.00	1.05	98.05	7,946.84	-1,064.36	-526.48	1,187.00	0.60	-0.48	-16.54
8,191.00	0.79	6.12	8,041.83	-1,063.84	-525.55	1,186.13	1.41	-0.27	-96.77
8,286.00	1.53	333.25	8,136.81	-1,062.05	-526.05	1,184.72	1.02	0.78	-34.60
8,380.00	1.09	318.92	8,230.78	-1,060.26	-527.21	1,183.57	0.58	-0.47	-15.24
8,475.00	0.40	332.19	8,325.78	-1,059.28	-527.95	1,183.00	0.74	-0.73	13.97
8,569.00	0.43	317.07	8,419.77	-1,058.73	-528.35	1,182.67	0.12	0.03	-16.09
8,663.00	2.20	335.60	8,513.75	-1,056.83	-529.33	1,181.35	1.91	1.88	19.71
8,758.00	1.50	332.50	8,608.69	-1,054.07	-530.66	1,179.40	0.74	-0.74	-3.26
8,852.00	0.60	338.40	8,702.68	-1,052.52	-531.41	1,178.30	0.96	-0.96	6.28
8,947.00	1.20	355.30	8,797.67	-1,051.07	-531.67	1,177.09	0.68	0.63	17.79

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Survey Report



Company: Project: Site:

Wellbore:

Design:

Well:

QEP Energy Services

Red Wash RW 23-23B Pad RW 12C1-23B RW 12C1-23B

RW 12C1-23B

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method: Database:

Well RW 12C1-23B

RKB @ 5648.10usft (SST 54) RKB @ 5648.10usft (SST 54)

True

Minimum Curvature
Compass DB Connection

9,041.00 9,136.00 9,230.00 9,324.00 9,419.00 9,514.00 9,608.00 9,703.00 9,798.00	0.88 1.40 0.92 0.65 0.65 1.27 1.05 0.48	35.10 339.00 47.34 94.18 140.68 133.21 294.57 280.78 325.69	8,891.65 8,986.64 9,080.62 9,174.61 9,269.61 9,364.59 9,458.59 9,553.58	-1,049.49 -1,047.81 -1,046.23 -1,045.76 -1,046.21 -1,047.35 -1,047.71	-531.34 -531.34 -531.19 -530.11 -529.23 -528.12 -528.14	1,175.53 1,174.00 1,172.50 1,171.62 1,171.66 1,172.23	0.82 1.23 1.45 0.71 0.54 0.66	-0.34 0.55 -0.51 -0.29 0.00 0.65	42.34 -59.05 72.70 49.83 48.95 -7.86
9,230.00 9,324.00 9,419.00 9,514.00 9,608.00 9,703.00 9,798.00	0.92 0.65 0.65 1.27 1.05 0.48	47.34 94.18 140.68 133.21 294.57 280.78	9,080.62 9,174.61 9,269.61 9,364.59 9,458.59	-1,046.23 -1,045.76 -1,046.21 -1,047.35 -1,047.71	-531.19 -530.11 -529.23 -528.12	1,172.50 1,171.62 1,171.66 1,172.23	1.45 0.71 0.54 0.66	-0.51 -0.29 0.00	72.70 49.83 48.95
9,324.00 9,419.00 9,514.00 9,608.00 9,703.00 9,798.00	0.65 0.65 1.27 1.05 0.48	94.18 140.68 133.21 294.57 280.78	9,174.61 9,269.61 9,364.59 9,458.59	-1,045.76 -1,046.21 -1,047.35 -1,047.71	-530.11 -529.23 -528.12	1,171.62 1,171.66 1,172.23	0.71 0.54 0.66	-0.29 0.00	49.83 48.95
9,419.00 9,514.00 9,608.00 9,703.00 9,798.00	0.65 1.27 1.05 0.48	140.68 133.21 294.57 280.78	9,269.61 9,364.59 9,458.59	-1,046.21 -1,047.35 -1,047.71	-529.23 -528.12	1,171.66 1,172.23	0.54 0.66	0.00	48,95
9,514.00 9,608.00 9,703.00 9,798.00	1.27 1.05 0.48	133.21 294.57 280.78	9,364.59 9,458.59	-1,047.35 -1,047.71	-528.12	1,172.23	0.66		
9,608.00 9,703.00 9,798.00	1.05 0.48	294.57 280.78	9,458.59	-1,047.71		THE STATE OF THE STATE OF		0.65	-7.86
9,703.00 9,798.00	0.48	280.78			-528 14	The state of the same of the s			00
9,798.00			9,553.58		-020.14	1,172.57	2.44	-0.23	171.66
0.4600.000000	0.48	325.69		-1,047.27	-529.33	1,172.66	0.63	-0.60	-14.52
9,892.00			9,648.57	-1,046.87	-529.94	1,172.56	0.39	0.00	47.27
	0.30	199.39	9,742.57	-1,046.77	-530.24	1,172.60	0.75	-0.19	-134.36
9,988.00	1.10	167.30	9,838.56	-1,047.91	-530.13	1,173.58	0.90	0.83	-33.43
10,082.00	1.90	154.30	9,932.53	-1,050.20	-529.25	1,175.29	0.92	0.85	-13.83
10,177.00	2.10	132.60	10,027.48	-1,052.79	-527.29	1,176.83	0.82	0.21	-22.84
10,271.00	2.00	142.00	10,121.42	-1,055.25	-525.01	1,178.11	0.37	-0.11	10.00
10,365.00	2.50	139,10	10,215.34	-1,058.09	-522.66	1,179.70	0.55	0.53	-3.09
10,460.00	2.80	131.19	10,310.24	-1,061.19	-519.55	1,181.22	0.50	0.32	-8.33
10,554.00	3.10	134.26	10,404.12	-1,064.47	-516.01	1,182.72	0.36	0.32	3.27
10,649.00	3.20	131.01	10,498.97	-1,068.01	-512.17	1,184.32	0.22	0.11	-3.42
10,743.00	3.00	128.20	10,592.84	-1,071.25	-508.25	1,185.63	0.27	-0.21	-2.99
10,838.00	2.50	130.31	10,687.73	-1,074.13	-504.72	1,186.76	0.54	-0.53	2.22
10,932.00	2.90	151.90	10,781.62	-1,077.55	-502.04	1,188.75	1.15	0.43	22.97
10,978.00	4.30	147.80	10,827.53	-1,080.04	-500.57	1,190.39	3.09	3.04	-8.91

Design Anno	tations					
	Measured	Vertical	Local Coo	rdinates		
	Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
	22.80	22.80	0.00	0.00	RKB	
	11,022.00	10,871.41	-1,082.83	-498.81	Proj @ TD	

Checked By:	Approved By:	Date:	
3,100,100,000,000,000,000,000,000,000		Temperature and the second sec	

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